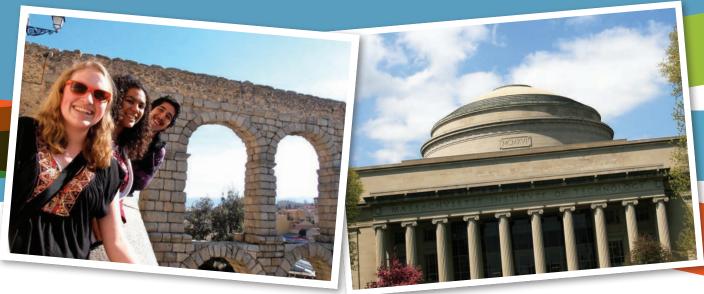


Global Education & Career Development

77 Massachusetts Ave., Building 12-170 Cambridge, Massachusetts 02139 617-253-4733 gecd@mit.edu

# Career Development Handbook 2013-2014





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## **MIT Career Services**

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## **Prehealth Advising**

Building 12-185 Phone: (617) 715-5328 • Fax: (617) 253-8457 http://gecd.mit.edu/grad\_school/health

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## Find your path. Start the journey.

On behalf of MIT Global Education and Career Development (GECD), I am pleased to welcome you to the 2013-14 edition of the MIT Career Development Handbook! As the above tagline indicates, GECD is here to help all MIT students, from freshmen to PhD, achieve lifelong success through career services, global experiences, and connections with graduate schools and employers.

In my meetings with MIT students and alumni, the MIT Career Development Handbook is one of the most frequently cited resources that they rely on for their career planning. The handbook is a "how-to" guide for all aspects of effective career management. The handbook also provides an overview of all that GECD has to offer you during your studies at MIT and beyond. Whether you are exploring your academic major and related careers; seeking an internship; planning to go abroad; searching for a job; or going on to graduate or professional school, GECD offers expert advice and opportunities to help you every step of the way. This handbook begins the conversation about your future, with more in-depth content available through our website, workshops and programs, events connecting you with relevant professionals, and meetings with staff.

Our goal is to engage you in learning and in experiences that will prepare you to effectively manage your career and lifelong learning in a globalized society. So, find your path and start the journey, knowing that GECD is your partner in this endeavor.

Sincerely,

Manie

Melanie L. Parker, Executive Director

## Introduction to Global Education & Career Development

We guide all students as they explore and prepare for global opportunities, health professions and careers.

## **MISSION STATEMENT**

Global Education & Career Development empowers MIT students and alumni to achieve lifelong success through seamless access to transformative global experiences, comprehensive and holistic career services and mutually beneficial connections with employers and with graduate and professional schools.

## **Resources and Services**

Welcome to GECD's *Career Development Handbook*! If you are an MIT student at any level — freshman, senior, masters student, doctoral student, or alum — this manual is for you. In the pages that follow, you will find information to help you shape your career while you are here at MIT, as you are launching out into the post-MIT world, and in subsequent years as your career develops and matures.

Following is a brief overview of resources and services we offer. To learn more, please visit our website, <u>http://gecd.mit.edu</u>, stop by 12-170, call our front desk (617-253-4733) or email us at **gecd@mit.edu**.

Our resources include career assessment, online career research tools, employer business card directory, information sessions and workshops, fall and spring on-campus recruiting, counseling appointments, mock interviews, study abroad and distinguished fellowships advising, prehealth advising, career panels, study abroad and career fairs, symposia and other networking opportunities.

*GECD website:* <u>http://gecd.mit.edu</u> — Our website contains pertinent information about our services, events and programs, and content regarding various career development topics. We hope you will seek it out as it augments the information in this *Handbook*.

*Career Services Drop-ins:* During the academic year we hold Drop-in Hours daily. Please see our website for our Drop-ins schedule: <u>http://gecd.mit.edu/services/appointment</u>.

*Career Services Individual Appointments:* Most individual appointments can now be booked online through CareerBridge, <u>https://www.myinterfase.com/mit/student</u>. If you have questions please call us at 617-253-4733.

*Career Services Workshops:* Throughout the academic year, Career Services presents career workshops. Many are tailored to the specific needs of undergraduates, graduate students, international students and prehealth applicants. Many of our workshops are available to read or listen to online. Some topics covered in workshops include:

Self-Assessment Networking Resumes, Cover Letters, and CVs Interview Techniques Job and Internship Search Researching Companies Negotiating Job Offers Applying to Graduate School

For more information about workshops please visit http://gecd.mit.edu

# Introduction to Global Education & Career Development Staff



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**Global Education** 



Joshua Nupp Assistant Dean



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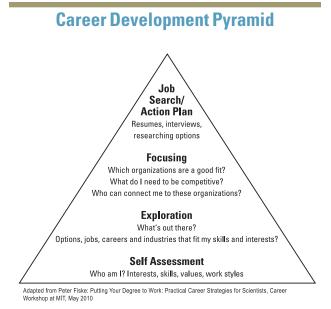


Scott Murray Program Assistant



Sarra Shubart Program Assistant

# **Chapter 2. Career Development Process**



The pyramid above presents a model for how to help you make informed decisions about your future career direction, and then conduct a successful job search, where "successful" refers to getting a job that is genuinely a good fit for you. Although the process is actually dynamic and there is movement back and forth among the different stages, the model suggests that a successful job search encompasses four basic steps. It begins with Self-Assessment — knowing who you are, moves on to Exploration of what's out there in terms of interesting industries, fields and occupations, progresses to Focusing on specific industries, fields and companies that appeal to you, and then culminates in the nuts-and-bolts Job Search stage—sending out resumes, interviewing, and negotiating job offers.

You might find it helpful to look through the following questionnaire, Testing Your Career Fitness. You can use this as a checklist to see how ready you currently are to make some career decisions, and conduct a successful job search.

## **Testing Your Career Fitness**

## Self-Knowledge

- 1. I know what motivates me to excel.
- 2. I can identify my strongest abilities and skills.
- 3. I have several major achievements that clarify a pattern of interests and abilities.
- 4. I know what I both like and dislike in work.
- 5. I have some ideas about what I want to do during the next [two to three] years.
- 6. I can list my major accomplishments in action terms.

## **Knowledge of Employers**

- I know what skills I can offer employers in different occupations.
- 8. I can clearly explain to employers what I do well and enjoy doing.
- 9. I can specify why an employer should hire me.
- 10. When I'm ready to find an internship or job, I will be able to identify and target potential employers.

## Internship or Job Search Skills/Contacts

- 11. I can conduct research on different occupations, employers, organizations and communities.
- 12. I can write different types of effective resumes, internship search letters, and thank-you notes.
- 13. I know how to network to develop connections in occupations and companies that interest me.
- 14. I know websites and other resources where jobs and internships of interest are posted.

Adapted from Jobtrak Job Search Tips where it was reprinted with permission from *Change Your Job, Change Your Life* by Dr. Ronald L. Krannich, 1995, Impact Publications.

## **A** Self Assessment riangle

At the base of our model pyramid, providing the essential foundation for career decision making, is self-assessment, or knowing yourself. Thoughtful self-assessment streamlines the remaining steps of the process, helping you to focus on organizations and careers compatible with your goals, and enabling you to market yourself knowledgeably and confidently. Three aspects that are important to consider when choosing a career are: interests, values, and skills. Being able to clearly and selectively articulate these on a resume and during interviews will help employers understand how you will be a good fit for their organization.

Career Services offers several self-assessment inventories to help students with career decision making and career planning. These include the Myers Briggs Type Indicator (MBTI), Strong Interest Inventory, Skills Scan, Values Cards, and StrengthsQuest.

## Interests

Our interest in the work we do is a key motivating factor for work. If we are interested in our work, we will find it more enjoyable, be more motivated to learn about it, develop relevant skills, work hard, and persist through difficult challenges. These factors increase our chances of success and job satisfaction.

What are your interests? Think broadly when you answer this question — include work, academics, volunteer and leisure interests. Consider subject areas as well as activities. For example, subjects might include biology, architecture, and economics, while activities could be research, design, and consulting.

Below is a list of questions that may help you identify some of your interests.

- 1. What do you love to do?
- 2. What books do you browse through in bookstores?
- 3. Which are your favorite courses?
- 4. If you won the lottery, to which causes/issues would you give money?
- 5. If you were a reporter, what kind of stories would you like to write?
- 6. What are your favorite objects?
- 7. What sorts of information do you find most fascinating?
- 8. Who are your heroes?
- 9. What did you dream of being when you were 10?

## Values

Values are ideals and core beliefs that are important to us; they give meaning and purpose to what we do. We are most

likely to be comfortable and thrive in work that is compatible with our own strongly held values. On the other hand, difficulties may arise when we find ourselves in conflict with a work situation because it clashes with our values. Consider the following values as they relate to work. Which ones are most important to you? Least important? Which are very deep and clear? Which are more ambiguous? How do your values impact your career direction and work decisions?

- \_\_\_Achievement
- \_\_\_Advancement
- \_\_\_Adventure
- \_\_\_Balance: Work/Family
- \_\_\_Challenge
- Competition Contribute to Society
- \_\_\_ Creativity
- \_\_\_ Expertise
- \_\_\_\_ Flexibility
- \_\_\_\_ Friendshir
- \_\_\_ Friendship
- \_\_\_ Helping Others \_\_\_ High Salary
- \_\_ Independence

- \_\_\_ Inner Harmony
- \_\_\_ Job Security
- \_\_ Leadership
- \_\_\_ Leisure
- \_\_\_ Location
- \_\_\_ Personal Growth
- \_\_\_ Physical Activity
- \_\_\_ Pleasure
- \_\_\_ Precision
- \_\_\_ Recognition
- \_\_\_ Responsibility
- \_\_\_ Stability
- \_\_\_Variety

## Skills

Skills are learned abilities — things we do well. Most students have far more skills than they realize, since they tend to take many of their skills for granted. Do you know what your skills are? Which skills do you like to use? Just because we can do something well doesn't mean that we enjoy doing it. Can you communicate your skills effectively to potential employers?

- Knowledge-based skills are acquired through education, training and on-the-job experience, e.g., you may be knowledgeable about quasars or JAVA or the plays of George Bernard Shaw. To think about your knowledge-based skills, ask yourself what subject areas do you know a lot about? Consider academic, work and vocational activities. Which do you enjoy?
- 2) Transferable skills are actions that can be carried out in different knowledge areas, e.g., writing, data entry and project management. Employers especially want to know what your transferable skills are. To think about your transferable skills, look at the list of action verbs on Page 29. These verbs describe skills. How many do you have? Which do you like to use? Which would you like to develop? Are there others not on the list?



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www.ll.mit.edu/employment

## For information about our schedule of on-campus information sessions and interview dates, please visit www.ll.mit.edu/college

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Once you have evaluated your interests, values, and skills, how do you put all that information together? Your interests and values will likely point you to certain fields, industries, companies or job functions. Knowledge of your skills will help you determine if those industries, organizations, and job opportunities are likely to offer you work you can skillfully do or learn to do and will enjoy doing. Resources like 0\*NET (see the shaded box below) can help you make connections between your skills, values, and interests, and occupations that draw on these.

Self-assessment is a lifelong practice, one that most people will return to again and again over the course of their professional careers. As you gain work experience and your skills grow, your interests and values are likely to shift. You can return to this pyramid to help you move confidently into new areas of work and career.

#### **Additional Resources on Self-Assessment**

- Myers-Briggs Type Indicator (MBTI) and Strong Interest Inventory — Career Services offers these two popular assessment tools to help students clarify their career-related interests. Meet with a Career Specialist to learn more about these assessments.
- Skills and Values Card Sorts Career Services offers these card sorts to help students identify their skills and values, and to clarify which ones they wish to develop or pursue. Meet with a Career Specialist to learn more about these tools.
- MyPlan MyPlan offers a collection of self-assessment inventories, which you can take on your own. Access them on CareerBridge, <u>https:// www.myinterfase.com/mit/student</u>. Check the opening page for the listing.
- Peter Fiske's Self-Assessment Exercises on CareerBridge, <u>https://www.myinterfase.com/mit/</u> <u>student</u> > Resource Library > Graduate Student Materials > Peter Fiske Booklet > Putting Your Science to Work
- John Holland's Self-Directed Search online: <u>www.</u> <u>self-directed-search.com</u>
- <u>www.masscis.intocareers.com</u> For descriptions of various occupations, their tasks, requirements, skills needed
- 0\*NET <u>http://www.onetonline.org</u>. Use the Advanced Search; from the drop down menu, select skills, interests, etc.; 0\*NET will generate a list of related occupations with descriptions for you to explore.

## ▲ Career Development Timeline for Undergraduates △

For tips on how to manage your professional development at each stage of your degree program, use the timeline below.

## Freshman Year

Adjusting ... Get to know yourself. Explore your academic and extracurricular interests and your future goals.

## Academics

- Test your interests through coursework, UROPs, volunteer jobs, and student activities.
- Meet your professors. Learn how to build your network by taking advantage of their office hours. Get to know at least one professor well every year.
- Identify four to seven career fields that interest you and research how academic training supports those careers. Meet with a Career Counselor to discuss majors as they relate to careers. Read up on the careers that interest you. Arrange informational interviews with alumni working in those fields, <u>http://alum.mit.edu/benefits/CareerGuidance/ICAN</u>.
- Attend the Choice of Major Fair. Freshmen are expected to pick a major in April, but you may remain "Undecided" until sophomore year.

## **Career Decision Making**

- Start a Career Log to record your thoughts on academic coursework, future goals, and careers. Create a "college accomplishments" section to record courses taken, extracurricular and volunteer activities, honors/awards, internships, and jobs. Update your Career Log throughout your college career. This log can be used to create a resume and will be helpful when you look for a summer job.
- Explore the services GECD offers such as career workshops, resume critiques, and mock interviews.
- Meet with a Career Counselor to help identify your interests, skills and values.
- Talk to a career counselor about a summer job or internship in an area that interests you. Consider a summer UROP.
- Develop a resume to use both on and off campus.
- □ Sign up to become a registered user of CareerBridge, see: <u>https://www.myinterfase.com/mit/student</u>.

## **Extracurricular Involvement**

Get involved in dorm activities, student organizations, or public service projects. Explore social and academic clubs that interest you. Join at least one extracurricular activity. Ask for help if you need it! That is what Resident Assistants, Freshman Advisors, Teaching Assistants, and Counselors are for!

## Sophomore Year

Exploring ... Explore occupations that interest you. Research and network career possibilities.

## Academics

- Confirm your choice of major. Explore a second major or minor if interested.
- Get involved with your advisor and your department. Schedule at least two meetings per semester with your advisor. Use the time to learn about his/her field and explore your interests in that field. Find out what activities and services are offered to undergraduates in your department.
- Electives can give you the opportunity to explore a second major or minor as well as to develop a personal interest. Consider targeting your electives to make you more versatile and employable.
- Explore opportunities for research, UROPs, and creative projects.
- If interested in studying abroad, begin to research your options. To meet with Global Education advisors see: <u>http://gecd.mit.edu/goabroad</u>.
- Learn about Distinguished Fellowship and Scholarship opportunities available to students in various fields.
   To meet with our Fellowships advisor see: <u>http://gecd.mit.edu/fellowships</u>.

## **Career Decision Making**

- □ Update your resume and post it on CareerBridge.
- Attend career and internship fairs to gather information on different industries and companies.
- Attend workshops and programs sponsored by GECD to build your career management skills.
- Explore opportunities to gain relevant work experience, for example: internships, externships, UROPS and summer jobs.
- Learn how to build your network and cultivate mentors. Conduct informational interviews with people in fields that interest you and record notes in your Career Log. Keep track of contacts!
- □ Update your Career Log.

## **Extracurricular Involvement**

- Attend meetings of student professional organizations. Get involved! This will help you gain skills including teamwork and public speaking.
- Act on your interests. Take an active role in an extracurricular activity and explore new ones. Consider assuming a leadership role in your dorm, campus organization, or on a class project.
- Volunteer.

## <u>Junior Year</u>

Experiencing...Get experience through internships and summer jobs. Prioritize your interests. Draft your job search or graduate school strategy.

## Academics

- Choose electives that enhance your learning and career goals.
- If you have not yet done a UROP, seriously consider doing one now, to develop skills and help you explore areas of interest.
- Explore options and desires to attend graduate or professional school. Consider one to three years of work experience first to enhance learning.
- Meet with an advisor before spring to discuss graduate school admissions and testing processes.
- Continue developing relationships with faculty, graduate students, and professionals. Identify who will serve as references for graduate school or employment.
- Apply to Distinguished Fellowships and Scholarships if appropriate for you. See <u>http://gecd.mit.edu/goabroad/</u> <u>fellowships</u>.

## **Career Decision Making**

- Meet with a Career Counselor to create a job or graduate school search strategy. Also discuss with a counselor effective ways to use web-based job and internship services.
- Update your Career Log. Use your Career Log entries to help you prioritize career choices.
- □ Post an updated resume on CareerBridge.
- Devote a significant amount of time to finding a summer job or internship or UROP in a field related to your future career goals.
- Practice networking while getting career information at company presentations, career fairs, career related events/forums, and talking to alums. Keep in touch with previous teachers and advisors.
- Consider developing a professional profile on LinkedIn, www.linkedin.com. Use it to keep track of—and build—your professional network.
- Arrange a mock interview at GECD to practice interviewing skills.
- Shop for business attire so you can "dress for success" in interviews.

## **Extracurricular Involvement**

- Send for career materials from professional associations and consider joining one as a student member.
- Continue to explore your values, interests, and skills through involvement with clubs, student organizations, and volunteer activities.

## Senior Year

Transitioning...Develop skills you need to accomplish your goals and thrive in life after MIT.

## Academics

- If you are planning to attend graduate or professional school, gather all application forms and write a statement of purpose.
- Make sure to keep up your grades. Graduate schools and some employers may want to see your final semester grades.

## **Career Decision Making**

- Visit GECD early in the fall semester to sharpen your job search skills and to take advantage of on-campus recruiting.
- Talk with professionals in your field about job search techniques and opportunities.
- Network with parents, friends, faculty, alumni, and others. Most jobs are found through networking.
- Develop a more active presence on LinkedIn. Join groups, and research people in fields and organizations of interest to you.
- Tailor your resume to each position for which you are applying and write compelling cover letters. Visit GECD and have your resume and cover letters critiqued.
- Identify three references and ask permission to use their names.
- Prepare for interviews by attending an Interview Workshop and doing a mock interview at GECD.
- Read relevant periodicals and trade journals to understand current issues in your field. Having this insight makes a huge difference during interviews.
- Analyze job offers based upon the goals and values that you documented in your Career Log. Visit GECD where a Career Counselor can help you walk through this decision.
- □ Let GECD know what you are up to for next year by completing the Graduating Student Survey.

## **Extracurricular Involvement**

- Think about your first year after graduation; your ideal work, proximity to family and friends, lifestyle, values, and long-term goals. It may help to talk about these things with your friends and people whose opinions you value.
- Start thinking about practical life after MIT. Project your needs and create a realistic budget. Attend seminars regarding finances, work/life balance, managing stress, office politics, etc.
- Enjoy the end of your senior year and graduation. Congratulations!

## ▲ Exploring Your Options: Knowing What's Out There △

Here are some suggestions for how you can learn about the enormous range of industries and occupations available to you. Think expansively and creatively!

1) Read about industries, organizations, occupations in:

- Occupational Outlook Handbook: <u>www.bls.gov/oco</u>
- 0\*Net Online: <u>http://online.onetcenter.org</u>
- Sloan Career Cornerstone Center: <u>http://www.careercornerstone.org</u>
- Websites, for example: www.collegegrad.com/careers/all.shtml
- Newspapers and magazines
- Trade magazines and newsletters
- Career books and career websites
- 2) Notice the jobs around you, especially those done by family, friends, acquaintances and others. Ask people about:
  - Their career path
  - How they feel about their work
  - What tips and advice they have to offer
- 3) Browse the MIT Alumni Directory on: <u>http://alum.mit.edu</u> and ICAN website:
  - What are alumni from your major doing?
  - From other majors?
  - Who are they working for?
  - Search ICAN for advisor-alums who have said they would be happy to talk to students about their own experience and give career advice.
  - Browse Alumni Profiles describing alumni career paths: <u>http://alum.mit.edu/news/alumniprofiles</u>

## 4) Talk to business/industry people:

- Talk with your advisor and faculty about opportunities for people with your academic training
- Attend student association events sponsored by various departments
- Take part in career fairs
- Conduct informational interviews with people in occupations and organizations that interest you

## **A** Focusing: Job Search Strategies $\triangle$

Focus on some industries and occupations that appeal to you, and research them in greater depth.

Researching organizations that interest you helps you decide which companies might offer a good fit for your occupational goals and interests. In addition, it is essential preparation prior to interviewing with a company. You can find general guidelines for job and company research at http://gecd.mit.edu/jobs/find/explore.

#### What you should know about a company:

- Size of organization (comparison to other companies in industry)
- Number of years in business; history of organization
- Geographical locations, corporate headquarters
- Products and services, clientele
- Age and background of top management
- Values, company culture
- Organizational structure, climate
- Current financial condition
- Annual sales growth for past five years
- Competition
- Reputation
- Future outlook
- News stories about company; any new developments, trends

## Where can you learn about companies and organizations?

- Company websites
- Annual reports: contact companies for copies
- Trade associations: print and web materials
- News articles about companies and executives: newspapers, journals (use online search engines, e.g., <u>www.google.com</u>)
- Online references: e.g., Sloan Career Cornerstone Center <u>http://www.careercornerstone.org</u>
- Directories: e.g., LexisNexis Company Dossier, Standard & Poor's Corporation Records
- Talk to employees (network), MIT alumni directory, LinkedIn

## **Researching Companies**

Undergrad Masters Doctoral

35.0%

15.4%

26.8%

7.0%

17.0%

22.4%

6.1%

6.1%

2.8%

1.9%

1.6%

33.9%

25.3%

28.2%

27.8%

19.5%

15.2%

8.7%

4.3%

4.0%

1.4%

0.4%

16.9%

5.8%

42.8%

12.6%

37.4%

12.6%

30.9%

4.3%

16.2%

1.1%

11.2%

(a.k.a.: How do I find which organizations do what I think I want to do, so I can start my job or internship search?)

- Knowing which companies or organizations do the work you're interested in is an essential part of your job search.
- Researching companies allows you to leverage the information you discover by using it to guide your content in your written materials (cover letters, resumes, emails) which you will submit for opportunities. This information helps you prepare for your interviews, and shows the employer you have done your "homework" which strengthens your overall candidacy.

Professional conference

**On-campus** recruiting

Networking

Career fair

Other

Internship led to job offer

Directly applied to employer

MIT Sponsored Job Listings,

Employer Database, INET

Through department (faculty, academic admin.)

Externally advertised job listing (online, print)

Contacts acquired through MIT Career Services

The very research skills and problem-solving methods you currently use to conduct cutting edge discoveries here at MIT, can be put to use to research companies or industry areas. Each MIT Course number has a designated librarian. Not only can the MIT Librarians help with your academic research, but they can also assist you in using the Company databases, Articles databases, Patent databases etc., to research companies and their competitors. Using these online tools can help you generate lists of companies to target that are specifically doing the type of work, or research, that you want to do! Companies, organizations and labs can be searched by various classifications including geographic areas around the world.

Each MIT Course area also has a library resources guide for each subject or industry area. Follow this link to find your MIT Libraries Subject Area Expert, and view their online guide to specific resources identified for your course/major. http://libguides.mit.edu/content.php?pid=110460&sid=1651114

MIT Libraries hold many subscriptions to online databases for your use. Access is free to these directories with your MIT Certificate. This *Tip Sheet* can help get you started using the databases.

http://gecd.mit.edu/sites/default/files/tipResearchingCompanies.pdf

Conducting company research is a significant part of the exploration process in your job search. GECD has many resources that can assist you in conducting company research. <u>http://gecd.mit.edu/jobs/find/explore</u>. Here on our website, you can view helpful short training videos we produced in partnership with MIT Libraries.

## ▲ Job Search Action Plan △

Once you have completed your self-assessment, explored different industries and fields, and narrowed your search to a few target industries and companies, you are ready to enter the final stage of the job search — identifying and applying for jobs. Below are some tips for how to go about finding job opportunities. Three job search methods are described: Networking, Using the Hidden Job Market, and the Traditional Job Search.

## Networking

Networking is the most effective method of finding a job. It involves talking to as many people as possible about your job search. Networking is expanding your network of professional associates and acquaintances by connecting to other people's network of associates and acquaintances. It can be part of a traditional job search as well as searches using the hidden job market. When networking, you must gather information and seek advice about professions, fields, occupations, trends, skills and expertise required. Get referrals to others who may expedite your job search. Networking is a two-way street. Offer to help the people who are helping you— become an active part of their network.

## Hidden Job Market

Many positions are never advertised so how can you find out about them?

## Target employers that interest you and identify someone who works for each, talk to him/her about the company, your interests and jobs.

- Do any MIT alumni/ae work for the company?
- Talk to people in your network does anyone know anyone who works for the company?
- · Research to identify the name of someone you can contact
  - Company/organization website
  - Directories (MIT Infinite Connection; LinkedIn)
  - Company Annual Reports
  - News articles search <u>http://www.google.com</u>

## Approach the employer

- Conduct informational interviews and network
- Ask for names of people you might talk with in areas of the company that particularly interest you
- Send a letter of inquiry to a company even if you do not know of an advertised position

## **Traditional Job Search**

You can apply for advertised job vacancies by checking out the following locations.

- CareerBridge on-campus recruiting: https://www.myinterfase.com/mit/student
- Newspapers, journals, publications
- Company websites
- Internet jobsites, bulletin boards e.g., www.simplyhired.com, www.indeed.com, http://www.Medzilla.com, a pharmaceutical industry site, and http://www.ieee.org, the electrical engineering association's website
- Listservs
- Notices from MIT Department Administrators
- Head hunters

## **Record Keeping/Action Planning**

Organize your job search. Find a method that works for you. Use an electronic diary, ring binder, file folders, computer reminders, database, or scheduler. Keep track of:

- 1) Job search ideas
- 2) Schedule of what you need to do and when:
  - Job application deadlines
  - Networking meetings
  - Follow-up calls to make
  - Interviews scheduled
  - Thank-you notes to be sent out
- 3) Records of all contacts made and networking leads: Name
  - · Phone calls, emails,
  - Dates of all actions
  - Contact information
    - Notes about conversations
  - Referred by whom

letters

- Additional contacts
   offered
- Dates when you plan to follow up
- Ideas to pursue
- 4) Industries and companies of interest and your research findings
- 5) Advertised jobs, relevant research, records of all related actions
- 6) Jobs applied for:
  - Research on the organization
  - Dates of all actions, contact information
  - Notes on all conversations, email correspondence
  - Copy of cover letters, resumes sent
  - Results
- 7) Reflections, lessons learned, suggestions for future



## What drives YOU?

HGST wants the next generation of Technology Leaders, Idea Generators, and Innovators.

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# EDRECRUIT@hgst.com

CNA is a not-for-profit organization that conducts objective, empirical research and analysis to help decision makers develop sound policies, make



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policies, make TO THE PEOPLE. TO THE DATA. TO THE PROBLEM better-informed decisions, and manage programs more effectively.

CNA's Institute for Public Research assists an array of federal, state, and local government agencies working in such areas as education, health care and public health, homeland security, human capital management, and air traffic management.

And through CNA's Center for Naval Analyses, the federally funded research and development center (FFRDC) for the Navy and Marine Corps, we provide research and analysis services to the military to help improve the efficiency and effectiveness of our national defense efforts.

CNA offers positions for Research Analysts and Research Scientists with experience in engineering, mathematics, economics, international relations, national security, public policy, history, psychology and many other scientific and professional fields of study. We look for people with the training and ability to reason soundly and to apply scientific techniques imaginatively – people who can see beyond surface details to the core of a problem and devise logical, practical solutions.

There are also positions available in computer and information technology, business administration, human resources management, accounting, security, and office management. CNA has created a work environment that challenges all staff to excel and rewards excellence with good pay, job satisfaction, and opportunities to advance.

See what opportunities await you. Visit <u>www.cna.org/careers/positions</u>.



All applicants are subject to a security investigation and must meet eligibility requirements for access to classified information. CNA is an Equal Opportunity Employer.

# Chapter 3. Internships, Jobs and Networking

## **Internships: Getting Experience**

Internships and research opportunities give you an opportunity to apply academic concepts in practice, and to explore possible future occupations. The experiential learning and skills acquired from internships and/ or research experience on a resume make you more marketable. MIT offers a variety of programs and some have submission deadlines in the fall semester. If you are seeking an internship overseas, you will need to start your job search process at least six months to a year in advance, depending on the countries that you will be applying to.

Benefits of Internships and Experiential Education Programs include developing transferable skills such as: communication, critical thinking, teamwork, change management, information technology, leadership, self-managed learning, interpersonal diversity, ethics, social responsibility, and technical knowledge.

## MIT's Opportunities for Experiential Learning and Internships

Most students are unsure of what they want to do for a profession. Those who think they know may not know how to get where they want to be, or what skills they need in order to be successful in their chosen field. The first step is to explore and experience a field in an area of interest.

## Undergraduate Research Opportunities Program (UROP)

Established in 1969, UROP is MIT's flagship academic research program. Participating students work with MIT faculty and research staff on a wide variety of investigative projects, across all disciplines. While most UROP projects take place on campus, students can learn the valuable technical and collaborative skills necessary for future occupations. UROP is a widely recognized program and employers look upon participation favorably. For more information, consult the UROP website <u>http://web.mit.edu/ urop/</u>, or contact UROP staff in Room 7-104, at urop@mit. edu or (617) 253-7306.

## Student/Alumni Externship Program

The Alumni Association's Student/Alumni Externship Program gives students a chance to meet and work with alumni, gain marketable job experience, and explore companies that could become potential employers. Students join alumni in their workplace during the January Independent Activities Period (IAP) and get a first-hand look at a profession. Current undergraduate and graduate MIT students are welcome to apply to the Externship Program. All applicants must submit an application form, resume and personal statement about their desire to participate. You will find more information online at <u>alum.mit.edu/students/NetworkwithAlumni/ExternshipProgram</u> or contact the Alumni Association at externship@mit.edu, (617) 252-1143 or visit the Alumni Center in W98-2nd Floor.

## Freshman/Alumni Summer Internship Program (F/ASIP)

MIT's Freshman/Alumni Summer Internship Program (F/ ASIP) is a graded seminar (SP.800/SP.801) that provides participating freshmen with career development training. Through a series of virtual webinars, live seminars, and written assignments, this seminar helps students explore their professional interests, cultivate professional skills, and find summer internships. In addition, students are paired with MIT alumni mentors at their internships who help educate students on what it takes to survive and thrive in the workplace. These mentors also share a learning-by-doing philosophy, a propensity for hard work, and methods for tackling problems. The program's goal is to teach valuable career planning and job skills that will be useful at MIT and beyond. Interested students should attend an information session and submit their F/ASIP application in the fall of their freshman year.

For more information about the program, including application materials and deadlines, please visit the F/ASIP website at <u>http://gecd.mit.edu/jobs/intern/explore/fasip</u>.

## MIT International Science & Technology Initiatives (MISTI)

Imagine joining a team of engineers at BMW in Munich; designing a Japanese robot; testing solar panels in Israel; or tackling a research problem at the Curie Institute. MISTI makes it possible.

MISTI connects MIT students to hands-on professional internships and research around the globe. All expenses are paid. Program coordinators work with students to match their skills and interests with MISTI's partners hundreds of the world's leading companies, research labs and NGOs. With language and cultural preparation, participants learn first-hand how innovation happens around the world and cultivate skills that make their resumes leap off the screen. Over 300 MIT students intern each year through MISTI programs in Belgium, Brazil, Chile, China, France, Germany, India, Israel, Italy, Japan, Korea, Mexico, Netherlands, Russia, Singapore, Spain, and Switzerland. Visit <u>http://web.mit.edu/misti</u>.

## Undergraduate Practice Opportunities Program (UPOP)

UPOP is a full-year educational program for MIT sophomores from all majors administered by the Office of the Dean of Engineering and serving as the first year of the three-year Gordon-MIT Engineering Leadership Program. The summer practicum component of UPOP includes a

## Did you know?

78% of students stated that their summer experience helped to clarify their future career goals. Source: GECD 2012 Summer Experience Survey hands-on internship with coaching before, during and after the assignment. This immersive learning experience lets students integrate their academic work in math and engineering science through application in the world of work. For more information see http://upop.mit.edu.

## MIT Washington DC Summer Internship Program

The Washington DC Summer Internship Program provides technically sophisticated undergraduates the opportunity to apply their scientific and technical training to public policy issues. The core of the program is focused on the summer months, when students work in the offices of government agencies, the private sector, and advocacy groups. Complementing the summer internships are a trip to Washington DC during spring break and academic exercises. Participating students are required to attend a seminar on the policymaking process during the late spring and early fall, for which they will receive 12 units of credit upon completion. Please see <u>http://web.mit.edu/ summerwash/index.html</u>.

## VI-A M.Eng. Thesis Program

The VI-A M.Eng. Thesis Program enables EECS students to combine classroom studies with serious professional work experience in industry with competitive salaries through a series of leading-edge technology jobs with participating companies. The VI-A program is designed to work in conjunction with the EECS five-year Master of Engineering degree program culminating in an industry-based master's thesis. VI-A work assignments are available at both domestic and international locations. For more information see <u>http://via.mit.edu/</u>.

## **Other Internship Programs and Resources**

Internships may be offered at companies, government agencies, nonprofit organizations, other universities, and advocacy groups. Here are some helpful links to find opportunities:

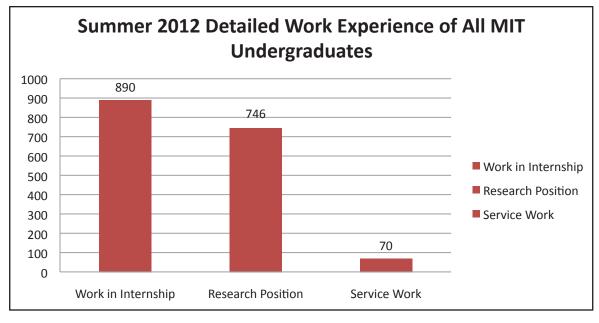
- MIT Career Services Internship Information\_ http://gecd.mit.edu/jobs/intern/explore
- CareerBridge: see "Job Search" and "On-Campus Recruiting Schedules" <u>https://www.myinterfase.com/mit/student/</u>
- iNet Internship Network: internships available to students from eight universities, including MIT: <a href="https://inet-csm.symplicity.com/students">https://inet-csm.symplicity.com/students</a>
- Federal Government Internships: <u>www.usajobs.gov</u>, <u>www.studentjobs.gov</u>
- Nonprofit Internships and Information: <u>http://www.idealist.org</u>
- Going Global: great resource for international jobs and internships; on CareerBridge under additional resources, <u>https://www.myinterfase.com/mit/student</u>
- Internship Postings through Email Blasts: to sign up go to CareerBridge <u>https://www.myinterfase.</u> <u>com/mit/student</u>; on your profile select the box to receive internship emails
- Summer Internship Survey: see what MIT students did during their summer break; go to <u>http://gecd.mit.edu/resources/data</u>

Do not automatically restrict your search to the Boston area or your hometown — a summer job away from MIT and from home can be fun and broadening. Some companies will help you find housing. Some will offer housing at a local college. If you need to find a place to live for the summer in another city, check out various online housing listings.

## **Community Service/Volunteering**

Similar to internship and jobs, volunteering can provide students with opportunities to gain or enhance skills that employers find relevant and essential in the workplace. Skills such as communication, leadership, teamwork, and even networking, can be utilized while serving your community. Volunteering can also be a medium in which students can explore possible career paths. If you are attracted to the idea of combining technical skills while contributing to society, consider career fields such as non-profit consulting, corporate social responsibly, public policy and governance, and international development to name a few.

Besides developing professional competencies, volunteering can be personally enriching, promoting civic responsibility and developing confidence. Companies



Source: GECD 2012 Summer Experience Survey

## Did you know?

At least 52.4% of undergraduates and 30.3% of master's students completed some sort of service experience while at MIT.

Source: GECD 2012 Graduating Student Survey today are beginning to realize the importance of giving back and are looking for employees who are well-rounded and are committed to service. The Public Service Center (PSC) at MIT provides resources and support to students, alumni, faculty and staff involved in a variety of

service activities locally, nationally, and/or internationally. The PSC can meet with interested parties to determine what opportunities are currently available, or to brainstorm new initiatives that will cultivate their leadership. For more information on how you can apply your skills and knowledge for the betterment of humankind, visit the PSC office in 4-104 or their website <u>web.mit.edu/mitpsc</u>.

## Jobs

MIT has some excellent resources to help you with "traditional" job search methods — responding to advertised positions. Two important resources are: 1) CareerBridge, MIT's On- and Off-Campus Recruiting and Career Management system, which allows companies and organizations to post available job and internship positions for our students to apply to, and 2) Career Fairs, where students can meet employers, learn more about opportunities with their organizations, and in many cases apply for available positions.

Be sure to review the sections on *Exploring Your Options* and *Job Search* in Chapter 2 of this *Handbook*, pages 13 -15 so you understand how to conduct an effective job search. For information on how to find leads through the most effective job search method, networking, please see the final sections in this chapter beginning with *Networking*, pages 24 - 25.

## CareerBridge Student FAQ

On-Campus Recruiting · Bldg 12-172 · 617.253.4733 · careerbridge@mit.edu

- 1. What is CAREERBRIDGE?
- 2. How do I set up my CAREERBRIDGE account?
- 3. How do I upload my resume/cover letter/etc.?
- 4. How do I submit a resume/cover letter/etc.?
- 5. How do I change a resume/cover letter/etc. I've submitted?
- 6. Where is the 'Apply Now' link?
- 7. How do I change my email address?
- 8. What do 'Accepted' and 'Alternate' mean, and what's the difference?
- 9. How do I sign up for an interview that I've been selected/labeled as Accepted/Alternate?
- 10. How do I switch my time or cancel an interview time?
- 11. I can't find company '\_\_\_\_\_'! How do I find company '\_\_\_\_\_'?!
- 12. Can employers view all of my documents if I have not used them for submissions?
- 13. I am unable to sign up for an interview slot; it says "no slots available." What does this mean?
- 14. How do I register/apply for a workshop/event?
- 15. How do I search schedules by their RESUME DEADLINE (Request Period Closed) date?
- 16. What is meant by "View All Schedules (Read Only!)"?

#### 1. What is CAREERBRIDGE?

**CAREERBRIDGE** is the GECD's On- and Off-Campus Recruiting and Career Management system for posting jobs. In addition, we use CareerBridge for managing counseling functions such as office drop-ins, appointments, workshops and more. To get started, visit the **CAREERBRIDGE** site to set up your account.

#### 2. How do I set up my CAREERBRIDGE account?

- · Make sure you are allowing POP-UPS on your browser
- Go to the CAREERBRIDGE website (https://www.myinterfase.com/mit/student/)
- Click 'Do I have an account?'
- Enter your MIT EMAIL in the 'Username' text box/field
- Click 'Reset Password'
- · If you ARE registered, you will receive a message telling you to check your email
- · If you are NOT registered, register by clicking on the link directly above the text box/field
- · Click on the continue button when you've completed the profile
- Click 'Submit Profile'
- You're request will be submitted for VERIFICATION and APPROVAL
- · If you have been approved, you will receive an email within 2 business days
- Log on!
- 3. How do I upload my resume/cover letter/etc.?
  - Create your resume(s)/cover letter(s)/etc.
  - Make sure you are allowing POP-UPS on your browser
  - Log into your CAREERBRIDGE account
  - Mouse over 'My Account'
  - Click 'My Documents'
  - · You can upload up to 99 resumes & cover letters

- 4. How do I submit a resume/cover letter/etc.?
  - Make sure you are allowing POP-UPS on your browser
  - Log into your CAREERBRIDGE account
  - · Mouse over 'On-Campus Recruiting Schedules'
  - Click 'Interviews I Qualify For'
  - Click on the schedule ID # of any job you find attractive NOTE: The results of this search contain ONLY the jobs for which you qualify
  - In the upper left corner, click 'Apply Now'
  - · Click 'OK' when the pop-up opens, and another pop-up will open
  - · Use the pull down menus to select your desired documents
  - Click 'Save'

## IMPORTANT NOTE: ANY changes made to a document that you have submitted to a schedule will ALSO CHANGE the SUBMITTED DOCUMENT! Please be sure to label your documents appropriately and keep thorough records of your submissions!

5. How do I change a resume/cover letter/etc. I've submitted?

- Make sure you are allowing POP-UPS on your browser
- · Log into your CAREERBRIDGE account
- Mouse over 'My Account', Click 'My Activity'
- Select the '# Schedules' tab
- Now select the '# Preselect' tab
   IPreselect
- Click the 'Change Documents' icon
- A pop-up window opens
- Use the pull down menus to select your desired documents
- · Click 'Save'
- 6. Where is the 'Apply Now' link?

If you do not see an 'Apply Now' link, it means you DO NOT qualify for the job. Click on the job link for details.

#### 7. How do I change my email address?

- Make sure you are allowing POP-UPS on your browser
- Log into your CAREERBRIDGE account
- Mouse over 'My Account'
- Click 'My Profile'
- Click the 'Personal Information' Tab
- Change your email address
- · Click 'Save'

#### 8. What do 'Accepted' and 'Alternate' mean, and what's the difference?

A company will label you as "accepted" if you have been selected for an interview. When a company selects you, an email notification will be sent to your email with details including the Schedule ID, Company Name, Sign-Up date, sign-up instructions and more. You and other Accepted students will be allowed to sign-up BEFORE the Alternates.

When you are a labeled as an "alternate" by a company, it means that your submitted documents (resume, cover letter, etc.) meet the expectations of the company, and they would like to interview you. Though you may not be as qualified as the "accepted" students, the company feels as though you are still a good fit! When a company selects you, an email notification will be sent to your email with details including the Schedule ID, Company Name, Sign-Up date, sign-up instructions and more. You and other Alternate students will be allowed to sign-up AFTER the Accepteds.

- 9. How do I sign up for an interview that I've been selected/labeled as Accepted/Alternate?
  - Make sure you are allowing POP-UPS on your browser
  - Log into your **CAREERBRIDGE** account
  - Mouse over 'My Account'
  - Click 'My Activity'
  - Click the 'Schedules' Tab  $\rightarrow$  then on the 'Preselect' Tab
  - Click on the Job Title for which you've been selected (labeled under header Preselect Status)
  - In the upper left corner, click 'Sign Up'
  - Click on the Interview Date
  - · Scroll to bottom where you will see available slots
  - Click 'Sign-Up' for the corresponding time

10. How do I switch my time or cancel an interview time?

- · Make sure you are allowing POP-UPS on your browser
- Log into your CAREERBRIDGE account
- Mouse over 'My Account'
- Click 'My Activity'
- Click on 'Schedules' Tab -> then on the 'Interviews' Tab
- Click on the Job Title for which you've signed up
- Scroll to mid-page
- Click your session's 'Interview Date' (there is a black arrow pointing to the session on which you are signed up)
- Scroll to bottom
- Click 'Switch Time'\* or 'Cancel'\*\*

\*If there are no available times, you will only be able to sign up on the same spot. Please keep in mind that some positions have tough competition and you may PERMANANTLY LOSE your spot if you are not careful. You CANNOT switch times for an interview within 48 hours of your scheduled interview!

\*\*You CANNOT cancel an interview within 48 hours of your scheduled interview!

To see our No Show and Cancellation Policy: http://gecd.mit.edu/jobs/find/apply/campus interview/policies

11. I can't find company '\_\_\_\_\_'!! How do I find company '\_\_\_\_\_'?

- Make sure you are allowing POP-UPS on your browser
- Log into your CAREERBRIDGE account
- Click 'Employer Directory'
- Type in the first letter of the company name ONLY
- Click 'Search'
- · Look through the list for the company

REMEMBER: Some companies use acronyms to refer to themselves

- Click on the company title
- Scroll to bottom of page
- Click on the numbers available under 'Openings' → 'Schedules' ('Jobs' are not On-Campus Recruiting related, but you can select them if you like)

REMEMBER: If you cannot apply, it will say why in red at the top of the page

IMPORTANT NOTE: If you're having trouble finding a company, you may be doing a search that is too specific. Some companies will use acronyms to reference themselves, making it difficult to find them in systems like CareerBridge. (Example: 'Procter & Gamble' will sometimes be seen as 'P&G')

12. Can employers view all of my documents if I have not used them for submissions?

No, employers with access to your account can only view your default resume. All other documents that you have uploaded will remain private unless you submit them to a job/schedule. CareerBridge acts as document storage with the \*option\* of submission.

13. I am unable to sign up for an interview slot; it says "no slots available." What does this mean?

Unfortunately, this means exactly what it says; that there are no slots available for you to chose. If you have been selected as an Alternate (see above) then the students labeled as Accepted have filled all the available time slots.

14. How do I register/apply for a workshop/event?

- Make sure you are allowing POP-UPS on your browser
- Log into your CAREERBRIDGE account
- Click 'Workshops Career Fairs and Events'
- Enter the name of/ category of/ date range of event(s)
- · Click 'Search'
- Click on the name of your event
- Click on the registration link in the description of the event

15. How do I search on-campus recruiting schedules by their RESUME DEADLINE (Request Period Closed) date?

- · Make sure you are allowing POP-UPS on your browser
- Log into your CAREERBRIDGE account
- Mouse over 'On-Campus Recruiting Schedules' -> Click 'View All Schedules (READ ONLY!)'
- Enter in the desired date range, or enter nothing for all dates
- · Click 'Search'
- Sort results as desired

16. What is meant by "View All Schedules (Read Only!)"?

This means that you will be UNABLE to apply to ANY job listed in these results regardless of whether you qualify. Any and all jobs for which you do not qualify will show a reason.

Example:

#### You do not qualify for this job.

-Degrees

## **Career Fairs**

Career Fairs are a great way to connect with potential employers. Many professional groups hold public career fairs which are advertised through various mediums, such as their web site, listserv, and social media. At MIT, career fairs are organized and run by a number of student organizations. Career Services holds an annual Career Week in the fall to prepare students for the Fall Career Fair. This is a tremendous opportunity for students to meet a wide variety of employers. GECD hosts the MIT Spring Career Fair which provides another opportunity for students to connect with employers to explore both jobs and internships. Review the GECD website for career fair information. http://gecd.mit.edu/jobs/find/apply/career\_ fair. Keep in mind that career fairs should be just one small part of your entire job search process; however, if you're well prepared, they can be a successful part. Here are some useful tips to help make the most of your career fair experience.

## **Keys to Career Fair Success**

**Research:** Have a plan of attack for the fair. Research the companies and organizations you are interested in and see if any new companies have registered when you arrive at the fair. Take time to survey the layout of the fair and determine where your "ideal" employers are located.

**Attire:** Conservative business attire is essential. Know what is the expected attire of your profession and dress accordingly. It is always better to be overdressed than underdressed.

**Resumes:** Bring more than you think you will need — at least two for each organization.

**Be Proactive:** You may only have three minutes to market yourself so be sure to make the most of your time. Start with the basics: approach the company representative in a friendly manner, make eye contact, offer a firm handshake, and show enthusiasm. Recite your brief script and prepare some questions just as you would for any employment interview. The most common question you will face is something along the lines of "what are you here for today?" Obtain a business card or contact information for representatives of organizations that interest you in order to follow up after the fair. A great follow-up question for you to ask is, "What do I need to do to obtain a second interview with your firm?"

**Follow-up:** There are two main methods of follow-up. Some suggest calling the recruiter within a day or two of the fair and leaving a voicemail message thanking the recruiter again for his/her time. Another tactic would be to write a thank-you note/email and send it the next day to the address on the recruiter's business card. The content of the note should include thanking the recruiter for his/her time and restating your interest and qualifications for the position.

## Questions to Ask Employers at a Career Fair

Your questions should be natural. Before asking questions, introduce yourself and establish rapport with the company reps. Listen carefully to their answers. Be courteous and be sure to thank them before closing the conversation.

Try not to ask questions that could easily be answered by the company's website (e.g., what does your company do?). **Do not read from this list. These are intended as examples of kinds of questions you could ask.** 

- 1. Where do MIT grads typically work in your company?
- 2. Did you go to MIT? (Whether or not) What did you major in?
- 3. What do you do at your company?
- 4. How long have you worked there?
- 5. Does your company hire on a continual basis or only at certain times of year?
- 6. How long does your hiring process take?
- 7. What are the most important qualifications your company looks for in an employee?
- 8. Are there particular personality traits you look for?
- 9. What are your company's major goals in the next few years?
- 10. Are graduate degrees important? In what areas within your company?
- 11. What kinds of courses do you suggest in order to be a successful candidate?
- 12. Is there a GPA cut-off for your recruiting process?
- 13. What kinds of entry-level positions exist within your organization that would be open to someone with my background?
- 14. As an entry-level employee, what kind of career advancement opportunities would be open to me in two, or five years from now?
- 15. How many years do entry-level employees typically work for your company? What is your retention rate?
- 16. Do you expect employees to relocate?
- 17. What is the training process like at your company?
- 18. Are there any mentoring opportunities for new professionals?

## **Global Jobs, Internships and Careers**

The working universe is expanding! The professional world you are entering is becoming increasingly international in scope — this includes education, industry, culture, politics, research, entertainment ... nearly every aspect of life. Employers are interested in employees who have "global intelligence" — skill in dealing with people, products, services, organizations and governments in different countries. As you are developing your career, be sure to consider global opportunities.

GECD has excellent resources to help you learn more about international options, search for a job abroad, or design a global career if that is your goal. In addition to the resources listed below, see our website, <u>http://gecd.mit.</u> <u>edu</u> , and search for Global Careers.

*Going Global*, available on CareerBridge <u>https://www.</u> <u>myinterfase.com/mit/student</u>, is a great place to start. It is a database of country-specific career and employment information, updated regularly. There are five main functional areas of interest in *Going Global*:

- The Country Career Guides offer country-specific career information and provide expert advice on finding employment at home and abroad.
- The Canada City Career Guides allow you to explore career and employment opportunities in the largest cities across Canada (these are linked to the Country Career Guide for Canada).
- Job and Internship Postings across the globe.
- Employer Directory search for employers in industries of your choice.
- H1B Information those carrying this VISA can search for US employers who applied for H1B visas in the prior year. Search by city and state.

Some additional global resources include:

- MISTI (MIT International Science and Technology Initiatives): <u>http://web.mit.edu/MISTI</u> — internships and research abroad (see page 14 of this *Handbook*)
- PSC (MIT Public Service Center): <u>http://web.mit.edu/</u> <u>mitpsc</u> — many and varied international opportunities
- Going Abroad: <u>http://www.goabroad.com</u> Information on a variety of global opportunities
- Fulbright English Teaching Assistantships: <u>http://www.</u> <u>iie.org/fulbright</u> — Awards granted to students to pursue their studies, research or teach English abroad
- Peace Corps: <u>http://www.peacecorps.gov</u>—This is considered the ultimate volunteer resource for Americans
- BUNAC: <u>http://bunac.org</u> Provides short-term authorization to work in several different countries
- Global Placement: <u>http://www.globalplacement.com</u> Offers job openings in many different locations around the world
- D-Lab: <u>http://d-lab.mit.edu/</u> project-based learning that seeks to improve the quality of life internationally for low-income households through the creation and implementation of low cost technologies.

## Networking

## **Networking Defined**

A professional network is a resource that can be defined as people you know who can provide leads, support and advice about your career and the job market. They can help you tap the vast majority of jobs that are never advertised. For this reason, networking needs to be an integral part of your job or internship search. The benefits of networking include learning more about career options, increasing your visibility within your field, propelling your professional development, finding suitable mentors, increasing your chances of promotion and perhaps finding your next job or internship. Though initially, you may feel uncomfortable about the notion of networking, it is a skill that can be learned and mastered by following the practical guidelines below.

Start by networking with people you know such as family, friends, faculty, students, community members, service professionals (doctors, dentists), alumni, and neighbors. Talk to them about what you want to do. Ask whether they know of any companies or organizations doing the types of things that interest you. Can they connect you with anyone in a related area of work or study who you could talk to in order to gain more information? Networking etiquette requires that you *do not ask for a job or internship*. The focus of networking is to meet many people in your field and find out more about the jobs they do.

Through networking, you get to learn firsthand the type of company you want to work for and the type of work that you really want to do. The art of informational interviewing is in knowing how to balance your ultimate agenda (to locate a job or an internship) with the unique opportunity to learn firsthand about the demands of your field. Always approach the experience as asking for advice rather than looking for work. Be courteous and professional at all times, even with your aunt's best friend. Never abuse your privilege by asking for a job or an internship. Execute your informational interviews skillfully, and a job or an internship may follow.

## **Step 1: Identify Your Network**

Start by listing everyone you know who is a potential prospect and who you can contact.

- Family (parents, siblings, uncles, aunts, cousins)
- Friends
- School contacts (faculty, teachers, classmates, alumni)
- Community associates (religious affiliates, neighbors)
- Work contacts (supervisors, coworkers)
- Professional association members, industry reception attendees, career fair representatives

## **Step 2: Prepare and Practice Your Script**

Prepare a brief introductory script, also known as an "elevator pitch." This should be a one-minute summary of your interests, goals and your needs right now. Practice by sharing your "pitch" with as many people in the above list as you can. Once you are comfortable with your 'pitch', start asking if they know of anyone who you should contact. You can then start contacting these people by phone or email.

A script will sound something like: "I am in my junior year at MIT, and I have a particular interest in Engineering Logistics. I hope to ultimately apply my degree to product and inventory management. Right now I am trying to learn more about the actual experience of people working in these areas. Could you spare some time to speak with me about the current trends and opportunities in this field?" Or ... "Do you know anyone I could speak with in order to find out more about the field?"

If you have found the contact person through another person your script might be: "My name is Sandra Chee. I am due to graduate from MIT in 6 months time. I received your name from your company's recruiting representative, David Jones, who suggested that I contact you. I am studying biological sciences and David thought that since you are doing work in this field, you might be able to tell me a bit about it. David also thought that you might be able to give me some names of other people or companies that I could approach for a possible informational interview (or summer internship)."

## **Informational Interviewing**

## Step 3: Arrange an Informational Interview

This networking/"elevator pitch" script then forms the basis of an email that you might write to someone with whom you would like to have an informational interview. The first networking email may be like a mini cover letter. Use an email subject line that will be clear and that will encourage your reader to open the email — you might write something like: "Question from an MIT Student." If you prefer, you can try to call the person directly to set up an informational interview at a later date. If the person is receptive, remember to accommodate their schedule when deciding on a time to speak.

Prepare for your informational interviews just as you would for an actual job interview. Polish your presentation and listening skills, and conduct preliminary research on the organization. You should outline an agenda that includes well-thought-out questions.

Your networking meeting should include the following elements: introduction, self-overview, Q & A, obtaining referrals and closing. Your networking meeting should not include asking for a position or for your resume to be passed on. Asking someone to pass on your resume is the same as asking for their endorsement, and asking for a job is presumptuous. Focus on gathering information and building a relationship.

Begin your interview with questions that demonstrate your genuine interest in the other person such as, "Could you describe some of the projects (or issues) that you work on?" or "What might a typical work week look like for you?" Then proceed with more general questions such as, "What are the employment prospects in this field?" or "Are you active in any professional organizations in our field and which ones would you recommend?" If appropriate, venture into a series of questions that place the employer in the advice-giving role, such as, "What should the most important consideration be in my first job?" Be sure to ask for referrals to other professionals. You could also ask their opinion about your resume.

Always remember to send a thank-you email or letter to every person who grants you time and to every individual who refers you to someone.

You may wonder what motivates professionals to grant informational interviews. The reasons vary. Generally, most people enjoy sharing information about themselves and their jobs and, particularly, giving advice. Some may simply believe in encouraging newcomers to enter their profession and others may be scoping out prospects for anticipated vacancies. It is common for professionals to exchange favors and information, so do not hesitate to call upon people. Also, they may be aware that some day the tables may be turned and you could become a helpful element in their networking.

Keep track of your networking meetings and be proactive with follow-up. Refer to "Record Keeping" on pages 14-15 for guidelines about implementing a job search action plan. Keep a list of your contacts and update it frequently with the names of any leads given to you.

In a group networking setting, circulate and meet people, but do not try to talk to everyone. It is better to have a few meaningful conversations than to have 50 hasty introductions. If you are at a reception, be sure to wear a nametag and to collect or exchange business cards so you can later contact the people you meet. Send a thank-you note or email if appropriate.

Be dedicated to networking. Most importantly, remember that networking should be ongoing. You will want to stay in touch with contacts over the long haul — not just when you need something. Make networking part of your long-term career plan.

## **Company Presentations**

MIT hosts employer panels and company presentations. Representatives from the leading industries and companies present on the trends of that industry and the opportunities that one can pursue within the industry. These may be followed by a reception for attendees.

Try to personally meet the representatives and ask thoughtful questions to gain information about the industry in general and about their company specifically. The person you are networking with may not have a job opening, but he or she may know someone who is hiring. The key is to exchange information and then to expand your network by obtaining additional referrals each time you meet someone new.

Search our website, <u>http://gecd.mit.edu/jobs/find/apply/</u> <u>company\_presentations</u> for company presentations.

## **Alumni Association Resources**

## Alumni Directory and the Institute Career Assistance Network (ICAN)

The Institute Career Assistance Network (ICAN) is a searchable database of alumni who volunteer their time as career advisors. It includes more than 3,000 MIT alumni who are willing to share their experiences and offer advice about career paths, interviewing and specific companies. You can communicate with them by telephone, email or in person.

The ICAN website <u>alum.mit.edu/benefits/CareerGuidance/</u> <u>ICAN</u> provides tips for making the contact, conducting a successful informational interview, and a bibliography of recommended career-related publications. To use the online database students must register for an Infinite Connection account at <u>http://alum.mit.edu</u> or visit the Alumni Center in W98-2nd Floor. You can also write to: <u>ICAN@mit.edu</u>.

## **Social Media**

Social media, which includes LinkedIn, Twitter, Facebook, Google+, blogs and more, can link you to new and old connections, and serve as a platform on which to build your professional brand. Be thoughtful about how you use the various social media platforms, and what level of privacy settings you will institute.

For example, you may decide to keep Facebook for personal use only, and set strict privacy settings (though realizing that inappropriate content may be visible to potential employers and limiting that information online); then, you may work to build a consistent professional brand across the other networks, or through a blog, to establish yourself as knowledgable in your particular area of expertise.

In particular, LinkedIn is commonly used when making and maintaining professional connections. LinkedIn is a business-oriented, professional networking site. LinkedIn allows you to maintain a list of contacts, or "connections," of people you know in the professional world. It also allows you to post your professional background and experience, upload resumes and other pertinent career information, and allow other users to search your profile. It allows you to join groups of other like-minded individuals, people who may share an industry interest or involvement. LinkedIn is an excellent resource to connect and be introduced to people in your field, research companies, and find and post jobs: <u>http://www.linkedin.com</u>.

## **Professional Associations**

Professional Associations can be an excellent resource for job seekers. Through their various activities and services

(meetings, conferences, publications, websites, etc.) professional associations provide information about career fields, job opportunities, and employers in the professions they serve. They can be particularly helpful if you need to create a long-distance network to help you conduct a long-distance job search.

To identify associations in fields of interest to you, go to Google and type in [your field of interest] + Association. Also consult the MIT Libraries Virtual References at <u>http://</u> <u>libraries.mit.edu/help/virtualref</u>.

To students (for whom time and money may be in short supply), the websites of professional associations offer easy, inexpensive, accessible (24 hours a day, 7 days a week!) access to:

- Information about career options and industry/ professional trends in various fields.
- Professional contacts: their members form a network of people who are often willing to assist others in career exploration
- Job listings

To learn about professional organizations in your field or in other fields you wish to explore, ask your advisor or other faculty members.



# **Chapter 4. Resume and Career Writing**

## **Resume Guidelines**

Your resume should be a concise summary of the high points of your education, work experience, and other qualifications. It should also be relevant to your audience's needs and to your employment interests, not a complete history of your life. It communicates your professional qualifications to employers, to interest them in interviewing you, and it creates their first impression of you. It is a marketing tool and an introduction to you and your experiences. Do enough research about the employer and the field to decide which messages are most important to your audience, and communicate these messages clearly and succinctly in a visually appealing format. Here are some guidelines to help you do this:

## **Presentation Checklist**

• Do not use a Microsoft Word resume template. None of them scan well.

- Use a laser printer.
- It is safe to use a conservative font, such as Arial or Times New Roman.
- Font size should be 10-12 points.
- Use 8.5" x 11" paper, printed on one side only.
- Use high quality resume paper.

## Format

- Stick to one page; use two pages if you have an advanced degree or extensive experience (10+ years).
- Make the page easy to scan and graphically pleasing: leave sufficient white space.
- Select a format that suits your qualifications. Do not automatically follow someone else's, which may not suit what you have to say.
- Avoid underlining; you may use bullets to emphasize your credentials.
- Use boldface sparingly for headings and employer information.



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## Content

- Put your name, address, and phone number at the top of the page. If you have a second page, repeat your name at the top.
- Choose topic headings that invite your readers' interest, e.g., 'Experience', 'Leadership', 'Skills', 'Activities/ Honors' rather than "employment" or "other."
- Include marketable and/or relevant data only; for example, include classes that have been most important in your education and are most relevant to the type of work you seek; do not provide an extensive list of courses.
- Highlight skills, accomplishments, capabilities, and work experience. Give evidence of your personal impact: show not only that you completed tasks but that you contributed to organizational goals.
- Cite numbers to convey size and/or scale of project, budget, and staff supervised.
- Give examples that demonstrate desirable personality traits such as leadership, interpersonal facility, teamwork, and initiative.
- Minimize personal information and omit unrelated memberships, age, marital and health status, and information that is repetitive, implicit (e.g., high school graduation for a college graduate), or out-of-date. If you are a US citizen or hold a permanent resident visa, include this if readers might have reason to think otherwise.
- Generally, it is a good idea to exclude data relevant to salary expectations, religious or political affiliations, and geographic descriptions.
- References are usually omitted. Employers assume that "references are available upon request," so leave this phrase off.

## Style

- Proofread to eliminate all spelling, punctuation, and grammatical errors.
- Use action verbs and strong adjectives. (See "Action Verbs.")
- Make it future or present oriented, suggesting that "I am this kind of person, with these abilities, as my past record demonstrates."
- Avoid repeating words or phrases.
- Leave out unnecessary words, sentences, and phrases such as "Duties included / Hired to / Project involved."
- Avoid stilted or confusing language. Ask yourself, "Would I talk like that?"
- Do not use the first person, I, or any pronouns.
- Be consistent and use the same grammatical style throughout.
- Avoid self-flattering terms such as "highly skilled, outstanding, or excellent." Describe your accomplishments effectively and let readers decide for themselves that you are well-qualified.
- Be honest and accurate, but not overly modest.
- Convey through the style and content of your resume an understanding of your audience's needs, priorities, hiring criteria, and vocabulary.

## **Final Edit**

- Ask a counselor, friend, or someone unfamiliar with your background to review your resume for clarity and effectiveness.
- Tailor your resume to the specific qualifications of the job for which you are applying and/or to the specific employer.

- Include all-important information, such as dates of graduation, major, GPA, etc.
- Proofread one more time to ensure correct spelling and punctuation.

## The Top 10 Pitfalls in Resume Writing

- 1. Too long. Restrict your resume to one page.
- 2. Typographical, grammatical, or spelling errors. Have at least two people proofread your resume.
- 3. Hard to read. Keep it simple with clean lines and white space.
- 4. Too verbose. Say as much as possible with as few words as possible, avoid use of jargon.
- Not enough information. Give dates describing related work experience, be specific about skills, accomplishments, activities, interests, and memberships.
- Irrelevant information. Customize each resume to each position you seek (when possible). Of course, include education and work experience, but emphasize relevant experience, skills, accomplishments and activities. Do not include marital status, age, sex, children, height, weight, health, church membership, etc.
- 7. Obviously generic. Tweak each resume according to the job description. The employer needs to feel that you are interested in that particular position with his or her company.
- Too fancy. Of course, use good quality bond paper, but avoid exotic types, colored paper, photographs, binders, and graphics. Electronic resumes should include appropriate industry keywords and use a font size between 10-12 points. Use italics and boldface sparingly.
- 9. Too static. Make your resume as dynamic as possible. Begin every statement with an action verb. Use active verbs to describe what you have accomplished in past jobs. Take advantage of your rich vocabulary and avoid repeating words, especially the first word in a section.
- Too modest. The resume showcases your qualifications in competition with the other applicants. Put your best foot forward without misrepresentation, falsification, or arrogance.

## **Online Resumes**

Though scanning technology and practices vary and are constantly changing, some companies still scan resumes and/or use keywords to identify candidates from their database. You want to fill your resume with as many of these words as possible. Companies that pick up many resumes at career fairs may use scanning technology, though you should always check with the employer requirements regarding format.

The essential keywords are specified by each employer for each position. You can only make reasonable assumptions about what a specific employer will ask for. Keep a log of keywords that apply to your occupation and industry.

## **Action Verbs**

Developed

Management Skills	Spoke
Administered	Translated
Analyzed	Wrote
Assigned	
Chaired	<b>Research Sk</b>
Consolidated	Clarified
Contracted	Collected
Coordinated	Critiqued
Delegated	Diagnosed
Developed	Evaluated
Directed	Examined
Evaluated	Extracted
Executed	Identified
Organized	Inspected
Oversaw	Inspired
Planned	Interpreted
Prioritized	Interviewed
Produced	Investigated
Recommended	Organized
Reorganized	Reviewed
Reviewed	Summarized
Scheduled	Surveyed
Supervised	Systemized
<b>Communication Skills</b>	Technical Sk
	recinical Sr
AddrassarbA	Assamplad
Addressed Arbitrated	Assembled Built
Arbitrated	Built
Arbitrated Arranged	Built Calculated
Arbitrated Arranged Authored	Built Calculated Computed
Arbitrated Arranged Authored Co-authored	Built Calculated Computed Designed
Arbitrated Arranged Authored Co-authored Collaborated	Built Calculated Computed Designed Devised
Arbitrated Arranged Authored Co-authored Collaborated Corresponded	Built Calculated Computed Designed Devised Engineered
Arbitrated Arranged Authored Co-authored Collaborated Corresponded Developed	Built Calculated Computed Designed Devised Engineered Fabricated
Arbitrated Arranged Authored Co-authored Collaborated Corresponded Developed Directed	Built Calculated Computed Designed Devised Engineered Fabricated Maintained
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Arbitrated Arranged Authored Co-authored Collaborated Corresponded Developed Directed Drafted Enlisted Formulated	Built Calculated Computed Designed Devised Engineered Fabricated Maintained Operated Pinpointed Programmed
Arbitrated Arranged Authored Co-authored Collaborated Corresponded Developed Directed Drafted Enlisted Formulated Influenced	Built Calculated Computed Designed Devised Engineered Fabricated Maintained Operated Pinpointed Programmed Remodeled
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lated е arch Skills fied cted ued nosed ated nined cted ified cted ed preted viewed tigated nized wed narized eyed emized nical Skills mbled lated uted ined ed eered cated tained ated inted ammed deled ired d hing Skills ted ed

fied hed nunicated ucted

Enabled Encouraged Evaluated Explained Facilitated Guided Informed Instructed Lectured Persuaded Set goals Stimulated Taught Trained **Financial Skills** Administered Allocated Analyzed Appraised Audited Balanced Budgeted Calculated Computed Developed Managed Planned Projected Researched **Creative Skills** Acted Conceptualized Created Customized Designed Developed Directed Established Fashioned Illustrated Instituted Integrated Performed Planned Proved

Revised

Revitalized Set up Shaped Streamlined Structured Tabulated Validated

#### **Helping Skills**

Assessed Assisted Clarified Coached Counseled Demonstrated Diagnosed Educated Facilitated Familiarized Guided Inspired Motivated Participated Provided Referred Rehabilitated Reinforced Represented Supported Taught Trained Verified

**Clerical or Detail** Skills Approved Arranged Catalogued Classified Collected Compiled Dispatched Executed Filed Generated Implemented Inspected Monitored Operated

Ordered Organized Prepared Processed Purchased Recorded Retrieved Screened Specified Systematized

**Stronger Verbs for Accomplishments** Accelerated Achieved Attained Completed Conceived Convinced Discovered Doubled Effected Eliminated Expanded Expedited Founded Improved Increased Initiated Innovated Introduced Invented Launched Mastered Originated Overcame Overhauled Pioneered Reduced Resolved Revitalized Spearheaded Strengthened Transformed Upgraded

From To Boldly Go: Practical Career Advice for Scientists, by Peter S. Fiske

## Writing About Your Skills — PAR Statements

PAR statements in your resume make it easy for employers to recognize your achievements. They provide a writing formula that stresses your skills and achievements. This is a way of writing out your skills on a resume to maximize their impact.

Using the action verbs listed on the previous page, describe your experience in terms of demonstrated skills and accomplishments in the following format.

1) Describe the project, the context, task, job.

## Samples of how to stress your skills:

- 2) What activity did you do?
- 3) What were the results, outcomes, benefits?

Present the skill as a concrete action that has been done. Do not use the words "took part in," or "gained experience in," or "assisted in."

Quantify the results by stating the amount of dollars saved, the number of clients served, the percentage increase in productivity or improvement in efficiency.

Theatre Marketing Responsibilities in based on informat	cluded coordinating artist press relea on from reservations and box office a ing to media, assisting in radio copy w	ttendants, handling photo and	
	After: Cambridge Performing Center (CPC) Theatre Marketing Intern • Coordinated artist press release 10% • Compiled and maintained a mai • Organized photo and press rele • Contributed to the copy writing	es that contributed to an increase ling list of 10,000 customers, CPC' ases to XYZ Television and Cambr	s largest ever ridge Daily News
Marketing Analyst	tive strategies for clients in the bio teo	June-August 2013 ch industry. Data gathered	
	used by the client to make mar	ision strategy in the biotech indus ket entry decision ee-member team, by interviewing	
et form and paragraph Investigated effects of	L mples of PAR statements (both form are acceptable): gas phase oxygen concentration ation of embryonic stem cells in	<ul> <li>Investigated and evaluated practices and expertise wit framework for globalization sharing and use of existing</li> </ul>	thin XYZ Co. to model n initiative to improve t

- levels on the differentiation of embryonic stem cells in order to establish optimal settings for growth. Designed and implemented a website containing
- interactive problem sets, information, and announcements for Math competition participants.
- · Found systematic method to raise glass transition temperature of vaccines, which allowed a higher storage temperature for the vaccines. Generated \$5 million annual saving in refrigeration costs.

- Technically advanced and trained the Major Account Sales crew with computerized presentation designs and introduced customer and industry market data software. Organized and developed new methods of reporting and presenting material to top advertisers.
- Reviewed literature and evaluated past models, expanded adaptability of key components, improved stress analyses of fuel forms.
- Consolidated 23 local customer service centers into five regional centers achieving 15% cost reduction and improving customer services.
- Led design efforts of five-member team that developed and manufactured a cooling system for desert combat aviators in 90 days (10 days ahead of the schedule).
- Using critical path scheduling and sub contractor management, successfully organized \$3,000,000 pier renewal due to ship collision.
- Wrote software for simulating complex distillation processes that was adopted throughout XYZ Co. leading to significant savings in manufacturing costs.
- Proposed new procedure to streamline the process of reaching optimized fuel design. Produced corresponding computer program using C++ and Fortran, and designed Graphical User Interface (GUI) for better communication with users.
- Created, refined and trained Sales Team on new presentation package and materials. Model was adopted and resulted in a 2% increase in overall company revenue.
- Incorporated new algorithms into pipeline simulation modules and achieved tenfold increase in speed.

## Samples of Freshman PAR Statements:

## Math Team Captain

Organized review sessions and scored practice tests, leading team to Top 5 finishes in the Arizona State Math League.

## National Honor Society Service Chair

Coordinated the Senior Citizens Ball, which raised \$1,500 for a new Senior Activities Center.

#### Swim Instructor

Taught children between the ages of four and six basic swimming techniques to promote water safety and awareness.

## **Radio Shack Cashier**

Communicated product details and provided exceptional customer service to 50+ people per day. Promoted to Assistant Manager after only four months.

## Burger King Team Member

Worked in fast-paced environment, received food-handling/ cashier training, and experienced assembly line teamwork.

#### **Country Club Tennis Instructor**

Worked with five 12-year-old children and developed their tennis playing ability, as well as cared for their well-being. Provided sunscreen, snacks, supervision, and tennis instruction. Helped to bring about a successful summer with no injuries or complaints.



## BRACEBRIDGE CAPITAL, LLC

Bracebridge Capital, LLC is a top tier hedge fund manager with an innovative, entrepreneurial and collaborative culture. We have had strong returns since the firm's establishment in 1994 and remain committed to our absolute return investment strategy.

The firm has grown to over \$8 billion in assets and approximately 80 employees, all of whom operate from our office located in Boston's historic Back Bay. Our core team of investment professionals approaches the markets with a diverse set of skills from a variety of educational and professional backgrounds.

## Why Bracebridge Capital?

- You will be challenged with demanding projects and given broad exposure to our business processes.
- We are a small firm with a casual, supportive, and collegial atmosphere.
- Our Traders, Analysts and Quantitative Research team all sit in close proximity to each other, maximizing your learning opportunities and accelerating your career development.

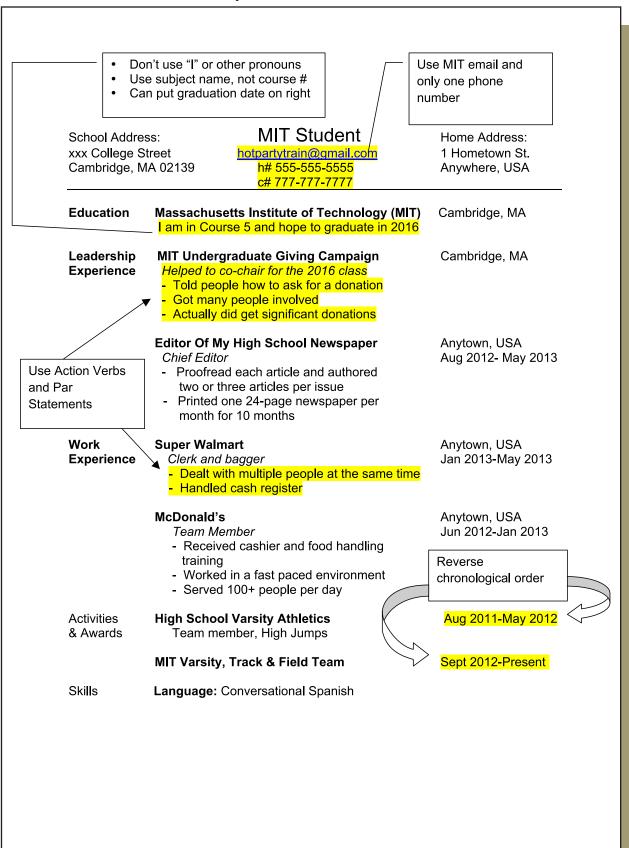
Our top strategic priority is to hire the talent to sustain and improve our performance over the long term. We look to hire individuals who are motivated, enthusiastic and results oriented with top academic credentials. We are seeking those who have strong math, analytical and programming skills and are eager to learn about international capital markets, trading strategies and risk analysis.

For more information about our schedule of on-campus information sessions and interview dates, please visit your school's career services website.



## **Sample Resumes**

## **Sample Resume Before Corrections**



School Addre xxx College S Cambridge, M	Street	MIT Student gjob@mit.edu c# 777-777-7777	Home Address: 1 Hometown St Anywhere, USA
Education		stitute of Technology (MIT) elor of Science in Chemistry	-
Leadership Experience	<ul> <li>Class of 2016 Co-C</li> <li>Trained 12 mem as how to ask fo</li> <li>Achieved 31% p than that of soph</li> </ul>	e Giving Campaign Chair bers from freshman class in r a donation and how to prop articipation within the freshm nomores and juniors rom the freshman class	perly document a donation
	Chief Editor • Proofread each	School Newspaper article and authored two or the page newspaper per month for 14 students	•
Work Experience	<ul> <li>Super Walmart</li> <li>Clerk and bagger</li> <li>Provided custom and received case</li> </ul>	ner service to 100+ people po shier training	Anytown, USA Jan 2013- May 2013 er day. Bagged groceries
		er and food handling training paced environment ople per day	Anytown, USA Jun 2012-Jan 2013
Activities & Awards	<b>MIT Varsity, Track</b> <i>Team member</i> , Hig		Sept 2012- Present
	High School Varsity <i>Team member</i> , Hig		Aug 2011-May 2012
Skills	Language: Conver	sational Spanish	

## **Sample Resume After Corrections**

School Address: 77 Engineer St. Cambridge, MA		Freshman Resume studentone@mit.edu (xxx) xxx-xxxx	Home Address xxx College St Centertown, Newstate xxxx
Education	Massachusetts Institute of Te	ence in Aeronautical/Astronomical Engine	Cambridge, MA
	Southtown High School Valedictorian in class of 128 st Relevant Courses: AP Calculus		Southtown, NS May 2011
Leadership Experience	<ul> <li>donation and how to prope</li> <li>Organized a week-long sche donations.</li> </ul>	he freshman class in fundraising activities	vork at a booth to ask for
	<ul> <li>High School Newspaper</li> <li>Chief Editor</li> <li>Proofread each article and</li> <li>Printed one 24-page newsp</li> <li>Oversaw staff of 14 student</li> <li>Assistant Editor</li> </ul>	shman class for the MIT Public Service Cer authored two to three articles per issue. baper per month for 10 months. ts. Answered questions regarding articles	Southtown, NS August 2010-May 2011 and page design. August 2009-May 2010
	Sports Editor Relay For Life Team Captain • Organized a team of 15 stud • Coordinated fund-raising e • Raised \$500 for cancer rese	fforts through the Beta Club, an organizat	August 2008-May 2009 W. Southtown, NS April 2010 ion for students with all A's.
Work Experience	Area Supermarkets Clerk and Bagger • Provided customer service	to 100+ people per day. Bagged groceries	W. Southtown, NS January 2010-May 2010 and received cashier training.
	<b>Taco Bell</b> Team Member	handling training, worked in a fast-paced	W. Southtown, NS June 2009-January 2010
Activities & Awards	MIT Varsity Track & Field Tean Team Member, Pole Vaulting.	m	September 2010-Present
	High School Varsity Athletics Track and Field, <i>Captain</i> ; Foot	ball, Team Member; Wrestling, Team Mer	August 2007-May 2011 mber.
	<b>STAR Student Award</b> Awarded to the senior from e	ach high school in Newstate with the high	March 2011 est SAT score.
	Havoline Scholar Athlete Awa Presented by The National Fo athletes in the state of Newsta	otball Foundation and College Hall of Fam	December 2010 ne, Inc. to the top 40 scholar
Skills	Computer: Microsoft Word, E	xcel and PowerPoint	
Carpentry: Framing, Masonry, Household Electrical Wiring, Flooring, Roofing, Plumbing.			

Education	Massachusetts Institute of Technology Candidate for Bachelor of Science degree in Biology	Cambridge, M. June 201
	Candidate for Bachelor of Science degree in Biology Relevant courses: Introductory Biology, Introduction to Molecular Biology Techniques, Intro	
	Neuroanatomy, and Introduction to Psychology	
	My High School	Mytown, X
	GPA: 4.76/5.00 (top ten in a class of 440)	June 201
Work Experience	Fantastic Lab, David H. Koch Institute for Integrative Cancer Research Researcher	<b>Cambridge, M</b> Oct. 2011 – Preser
	<ul> <li>Studying application of Lithium Orotate in hydrogels to inhibit GSK-3? enzyme, promotin</li> <li>Analyzing possible therapy treatments for spinal cord injury and neural regeneration in rats</li> </ul>	
	Children's Hospital Boston	Boston, M
	Shadow Student	Sept. 201
	<ul> <li>Followed a pediatric cardiac anesthesiologist for two days in operating room and catheteriz</li> <li>Observed an atrial ventricular canal repair of a 5-month old and an aortic valve repair in an cases of Cockayne Syndrome and Williams Syndrome.</li> </ul>	
	Nicetown Hospital	Nicetown, X
		Sept. 2008 – June 201
	<ul> <li>Managed front desk of the Fitness Center and maintained general upkeep and organization</li> <li>Interacted with on average 15 people each day. Volunteered 140 hours total.</li> </ul>	of the gym.
	ABC Lab, Brigham and Women's Hospital	Boston, M
	<ul> <li>Coder</li> <li>Systemized questionnaires filled out by female nurses as part of Nurse's Health Study for F Systemized about 60 questionnaires each day.</li> </ul>	June 2009 – Aug. 200 Iarvard Medical Scho
Leadership	MIT Biology Undergraduate Student Association	Sept. 2011 – Preser
	<ul> <li>Freshman Representative</li> <li>Publicize the organization's events and announce Biology opportunities to undergraduate f</li> </ul>	reshmen.
	• Help plan monthly student/faculty luncheons and an end-of-year senior dinner.	~
	My High School Official School Newspaper Editor in Chief News Editor Ir News Editor	Sept. 2007 – Feb. 201
	<ul> <li>Editor-in-Chief, News Editor, Jr. News Editor</li> <li>Oversaw production process of a 9-issue Volume for 40-student staff. Taught editors skill-s</li> </ul>	ets necessary to print
	monthly press publications and how to write journalistic style prose (ex. News, Features, E	ditorials, etc.).
	My High School Student Government, Senate Vice President, Secretary	Sept. 2008 – June 201
	<ul> <li>Pushed for school wide policies that would benefit both the administration and student bod</li> </ul>	у.
	My High School Varsity Swim Team	Nov. 2008 – Feb. 201
	Captain <ul> <li>Led and motivated team of 40 members during practice and competitions.</li> </ul>	
Skills	<ul> <li>Lab: Molecular Biology Techniques (ex. genomic DNA extraction and purification, oligonuc polymerase chain reaction, bacteriophage plating and propagation, etc.)</li> <li>Technology: Microsoft Office, Adobe InDesign, and Adobe Photoshop</li> </ul>	cleotide design and
	Foreign Languages: Basic understanding of Korean and French	
Activities/	MIT American Medical Student Association, Member	Sept. 2011 – Preser
Interests	Division I Freshman Heavyweight Crew Team, Member	Sept. 2011 – Preser
	MIT Dance Troupe, Member Massachusetts Gamma Chapter of Phi Delta Theta, Freshman Secretary	Sept. 2011 – Preser Sept. 2011 – Preser
	High School Principal Selection Advisory Committee, Student Representative	March 201
Honors/	Williams College Book Award (top 5 percentile; Exceptional Leadership and Community S	,
Awards	NE Scholastic Press Association Journalism Award (Scholastic Editing and Publishing Ac	hievement) 201 201
	ACL Youth Scholarship (Academic Excellence, Community Service, and Leadership)	201

School Addres XXX Memoria Cambridge, M	al Dr. (XXX) XXX-XXXX	Home Address: Someplace, MA
Education	<ul> <li>MASSACHUSETTS INSTITUTE OF TECHNOLOGY (M.I.T.)</li> <li>Candidate for B.S. in Biology, GPA: 4.6/5.0</li> <li>Concentration in Management at Sloan Business School and Minor in Brain and C</li> <li>Authored 5 publications in the <i>MIT Undergraduate Research Journal</i> and other pe</li> <li>Relevant Coursework: Finance Theory, Economics of the Health Care Industry, Sciences, Building a Biomedical Business, Cancer Genetics and Therapies, Cellular</li> </ul>	er-reviewed journals. Strategic Decision-Making in Life
Experience	<ul> <li>PUTNAM ASSOCIATES Analyst <ul> <li>Evaluated in 6-member team whether client's marketing strategy for its \$100M targets key decision-makers in transplant community. Client implemented procontent and delivery, designed to increase prescriptions for product by nearly 30% <li>Managed recruitment and interviewing process of 98 physicians to obtain primary data from interviews and secondary research in Excel/Access. Prepared PowerPoint</li> <li>Analyzed past product switches from predecessor to successor drugs for independent for future drug launches. Developed a database providing key criteria for launching </li> </li></ul></li></ul>	posed improvements in message data for marketing case. Analyzed at deck for presentation to client. project. Presented recommendations
	<ul> <li>MIT PROGRAMS ON THE PHARMACEUTICAL INDUSTRY</li> <li>Health Economics Research Assistant, Sloan Business School</li> <li>Designed, created, and tested a strategic model for the pharmaceutical indust and economics to forecast (prior to clinical trials) which drugs will succeed on inadequate drugs will significantly reduce the \$800M spent to successfully launch</li> </ul>	the market. Early elimination of
	<ul> <li>MERCK &amp; CO., INC.</li> <li>Pharmaceutical Laboratory Research Assistant, Infectious Disease Department</li> <li>Identified deficiencies in Type 2 Diabetes drugs on the market and screened che develop an efficient drug without these shortcomings. Drug predicted to obtain su the \$14B oral Type 2 Diabetes drug market compared to competitors.</li> </ul>	
	<ul> <li>MIT CENTER FOR CANCER RESEARCH</li> <li>Academic Laboratory Research Assistant, Housman Laboratory</li> <li>Developed a product to recognize activity of a cancer-causing gene, aiding in d Engaged in all stages of product development: identification of market need, eng with industry for testing, production, and marketing of final drug.</li> <li>Designed a new sequencing technique that refines a common laboratory proefficiency by 50% on average, reducing processing time by 25%, and creating more final drug.</li> </ul>	gineering of product, collaborating ptocol. New procedure increases
Leadership	<ul> <li>MARCH OF DIMES BIRTH DEFECTS FOUNDATION</li> <li>Director of Massachusetts Youth Public Affairs</li> <li>Lobbied legislators to encourage federal, Massachusetts, and California governmr improve the health of women. Introduced and promoted 10 Senate Bills, 4 of whice</li> <li>Represented Foundation on the Massachusetts State Public Affairs Committee.</li> <li>Organized conferences and fundraisers as a volunteer for the past 7 years (1998-Pr</li> </ul>	h have been approved thus far.
	<ul> <li>JOURNAL OF YOUNG INVESTIGATORS</li> <li>Story Editor and Science Journalist</li> <li>Managed 25 science journalists, delegated writing and editing tasks, and chose arti</li> <li>Created daily digests about current science news, distributed to all science journalist</li> </ul>	
	<ul> <li>SCIENCE &amp; ENGINEERING BUSINESS CLUB</li> <li>Consulting Focus Group Organizing Committee</li> <li>Organized 6 campus-wide information session to educate students about careers in</li> <li>Selected and worked closely with speakers from diverse occupational backgrounds</li> </ul>	
Awards & Interests	<ul> <li>Robert C. Byrd Scholarship, awarded to top 1% of U.S. students for academic exce</li> <li>Rensselaer Medal, awarded to top 20,000 students worldwide for achievements in</li> <li>Interest in track &amp; field, travel, photography, and oncology.</li> </ul>	

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345 Infinity Drive Cambridge, MA 02139

#### EDUCATION

- Massachusetts Institute of Technology (MIT)
- Candidate for a Bachelor of Science degree in Mathematics with Computer Science
- · Candidate for a minor in Management
- · Relevant Coursework: Probability and Statistics, Algebra, Analysis, Discrete Math, Managerial Psychology Laboratory

Matha Maddox

matha@mit.edu

(617-XXX-XXXX)

#### EXPERIENCE

#### **Telecommunications Company**

**Operations Research Analyst** 

- · Assessed financial risks involved with participating in online advertising-space exchanges
- · Devised bidding policies for auctions at the exchanges that led to victories three times out of five and built mathematical models around these policies to increase the company's margin from online ad-spaces by 5%

#### MIT Sloan School of Management

- Undergraduate Researcher June 2010 - October 2010 · Conducted experimental prediction markets with human and artificial intelligence to find the best tools to predict future events such as election-results or the stock market
- · Developed an experiment-procedure online that reduced bias by eliminating involvement of the experimenter and saved two hours and \$200 per experiment

#### **MIT Center for Collective Intelligence**

- Undergraduate Researcher
- · Conducted individual and group IQ/EQ tests on human subjects to formulate ways to measure and predict the performance of individuals working as part of a team and the efficacy of the team dynamic
- · Saved four hours of experiment-time per day by redesigning the experiment-procedure so that each experiment could be held with three fewer researchers and up to six experiments could be held at the same time

#### **MIT Tech Callers**

Caller

· Communicated with MIT alumni on behalf of the MIT Alumni Association and raised \$5,000 in donations

#### LEADERSHIP

#### MIT Student Cultural Association

Treasurer

- Managed \$10,000 worth of finances for a group of 400 students and raised \$3,000 in funds for their events
- · Created an online system for reimbursements that made the process faster and reduced paperwork

#### **MIT Undergraduate Association**

- Member of Committee on Student Life
- · Organized a week long convention of 3,000 students with activities geared towards improving health on campus
- · Linked 376 freshmen to upperclassmen with similar career objectives in a one-on-one mentoring relationship

#### **MIT International Science and Technology Initiatives**

#### Advisor and Teacher

- Taught Mathematics and Physics to 500 high school students in Italy and advised teachers on inexpensive ways of making their lessons interactive that helped each school save up to \$1300 a year
- Worked with a group of 10 teachers and five principals from high-schools in Italy to prepare a report for the Italian Ministry of Education on how to make the education-system in Italy more hands-on and technology-oriented

#### The XYZ Newpress

- Founder and Editor • Led a staff of 25 high-school students to develop the first English newspaper to be printed and distributed in My Country
- Converted it to a trilingual newspaper and increased profitability by 25% in two years

#### SKILLS

Languages: Fluent - French and Native - Hindi Software: LATEX, GLPK, Microsoft Office Activities: Member-Delta Psi Fraternity, Choreographer - MIT Dance Troupe, Journalist - The Tech My City, My Country

Cambridge, MA

My Street

June 2013

GPA: 4.6/5.0

Paris, France

June 2010 - Present

Cambridge, MA

Cambridge, MA June 2010 - October 2010

Cambridge, MA February 2010 - June 2010

> Cambridge, MA May 2010 - Present

> Cambridge, MA

February 2011 - Present

Milan, Italy and Cambridge, MA

September 2010 - March 2011

My City, Country October 2006 - May 2008

Student Enviro Eng	
Environment St. Cambridge, MA 02139	Phone: (617) xxx-xxxx Email: EnviroEng@mit.edu
EDUCATION	
<ul> <li>Massachusetts Institute of Technology (MIT) – Cambridge, MA</li> <li>Master of Engineering in Environmental Engineering         <ul> <li>Relevant Coursework: Strategies for Sustainable Business, System Dynamics, Susta Technology in Energy and the Environment, Design for Sustainability</li> </ul> </li> <li>Cornell University – Ithaca, NY</li> <li>Bachelor of Science in Civil and Environmental Engineering         <ul> <li>GPA 3.57/4.00 (Cum Laude), Chi Epsilon Honors Society</li> <li>Semester Abroad, University of Melbourne, Melbourne, Australia, 2004</li> <li>Relevant Coursework: Engineers for a Sustainable World, Sustainable Small-Scale V</li> </ul> </li> </ul>	2010
Environmental Problems for Urban Regions EXPERIENCE	
Camp Dresser & McKee (CDM) – Cambridge, MA	2010 2012
Environmental Engineer Harvard University Allston Campus	2010-2012
<ul> <li>Delivered sustainable technology assessment to compliment the campus's low-carbon findings to 50 employees through teleconference.</li> <li>Managed the design development of the utility system; wrote 4 chapters of 13 chapt of design report and associated CAD drawings.</li> </ul>	-
<ul> <li>Facilitated a multi-discipline (6), multi-consultant (15) project team; led client, ager communications; developed technical reports and \$300,000 budget; managed staff c</li> <li>Technical lead for the evaluation of on-site deep heat geothermal energy; performed inventory. Wrote 5 of 8 chapters of the feasibility report.</li> </ul>	of lower grade levels.
One of 15 chosen from 4,000 employees to be featured in the company's annual rep	ort.
<ul> <li>Sustainable Wastewater Treatment Plant Design</li> <li>Secured a Massachusetts Technology Collaborative (MTC) grant for the feasibility greases to biofuels to jointly reduce a sewer system nuisance and the plant's reliance</li> <li>Evaluated sustainable features for a wastewater treatment plant upgrade including a management, green building design and construction, and potential energy technolo costs. Recommendations included in 30% project design submittal.</li> </ul>	e on fossil fuels. n assessment of stormwater
<ul> <li>City of Salem Water Conservation Planning</li> <li>Developed water conservation recommendations and a comprehensive implementat Engineering Department.</li> </ul>	ion plan for the city's
Recommendations embraced by the City Mayor. Presented findings to the community	ity at a televised public meeting.
<ul> <li>Sulabyia, Kuwait Wastewater Treatment Plant</li> <li>Evaluated the potential for innovative disposal options for reverse osmosis waste br wastewater treatment plant.</li> </ul>	
<ul> <li>Specifically evaluated options for wetland treatment, saline farming, irrigation of tu source, phosphorus recovery, and deep well injection.</li> <li>Engineers for a Sustainable World – Ithaca, NY/La 34, Honduras</li> </ul>	rf fields, bioreactor landfill water
Project Team Member	2009-2010
• Designed a water treatment plant for the small village of La 34, a farming communi near the northwest coast of Honduras.	
• Trained community members to self-sufficiently run the water treatment plant; plan Cornell University – Ithaca, NY	
<ul> <li>Teaching Assistant/Laboratory Assistant</li> <li>Helped 40 students design, build and automate miniature water treatment plants usin</li> <li>Facilitated a fluid mechanics laboratory including the setup and supervision of hydr</li> <li>University of Southern California/Camp Dresser &amp; McKee (CDM) - Los Angeles, CA</li> </ul>	aulic experiments.
<ul> <li>Sustainable Cities Undergraduate Fellow</li> <li>Worked with a diverse team of students, academics and professionals to incorporate development of a rapidly expanding Los Angeles School District school system.</li> <li>Recommended sustainable features adopted in a prototype environmental impact re CERTIFICATIONS AND SKILLS</li> </ul>	
<ul> <li>Engineer in Training, April 2010</li> <li>Hydraulic calculations using MathCAD</li> <li>Eligible for Professional Engine</li> <li>Water Distribution Modeling using MathCAD</li> </ul>	

#### Mech Eng Masters Student

XXX Memorial Dr. Cambridge, MA 02139 XXX-XXX-XXXX xresume2@mit.edu

#### Education

Massachusetts Institute of TechnologyCambridge, MACandidate for Master of Science in Mechanical Engineering, June 2014.Relevant coursework: Entrepreneurship Lab, Product Design, Preliminary Venture Analysis,Applied Math for Engineers. GPA: 4.8/5.0

South Dakota State University (SDSU) Bachelor of Science in Mechanical Engineering, June 2011. GPA: 3.97/4.0. Brookings, SD

 People's Friendship University
 Moscow, Russia

 One year course in Russian Language in preparation for an MD in Medicine.
 Moscow, Russia

#### Experience

#### Edelman Lab, MIT

2011-current

Examined implantation of a medical device (stents) in human arteries. Identified the contribution of the geometry as well as material properties of the arterial walls. Drew interpretations by assessing the response of arteries to these devices using numerical techniques (finite element methods).

#### Gas Turbine Lab, MIT

Cambridge, MA

Cambridge, MA

2010-2011

Analyzed a propeller connector (hub) for a vertical test stand to be used in the study and control of flow patterns around propellers. Calculated design parameters, and strength evaluation using software such as Patran. Created models using computer aided design tools (Pro-Engineer).

#### Skills

**Computer:** Fortran, Matlab, HTML, UNIX, some JAVA and Visual Basic; Computer aided design: Pro-Engineer, Ideas; Numerical analysis: ADINA, Patran; **Language:** Proficient: English, Hindi; Conversational: Russian; Basic French, Korean, Arabic.

#### Leadership/Extracurricular

Managed 150 students as a Resident Assistant at SDSU. Columnist at South Dakota State Univ; Wrote articles in the MIT campus newspaper. Published poem in anthology of new artists.

#### **Honors/Awards**

Pi Tau Sigma, Tau Beta Pi engineering Honor societies; Sigma Pi Sigma outstanding Physics student of the year 2008-2009; Perry W. Williams Prize 2009-2010; Wilton McCown Scholarship 2010-2011.

	Joe Resume		
	7 Massachusetts Avenue Cambridge, MA 02139		7-253-XXXX XX@mit.edu
EDUCATIO	ON		
	etts Institute of Technology (MIT), Cambridge, MA Science in Computer Science and Mechanical Engineering	GPA: 5.0/5.0	2013 (expected)
Bachelor of Class I Publis	itute of Technology (IIT), Madras, India <i>Technology, Mechanical Engineering</i> Rank 1. (Summa cum Laude) – secured a gold medal and three si hed paper on manufacturing process control- <i>Intl. Journal of Manu</i> ardized Test Score: GRE – Verbal: 720/800, Quantitative: 800/80	facturing Technology and M	
RELEVAN			
Software Courses Projects	Excel spreadsheets including Sensitivity Analysis, Monte Carlo Matlab, Saphire (probabilistic analysis tool) MS Word and MS Coursework covering fundamentals of finance, economics, stati engineering, and engineering math. Simulated stock prices using Hidden-Markov-Models (Course - techniques as part of a course portfolio (Course - Engineering O	PowerPoint. stics, risk-benefit and decisi Statistics); researched syste	on analysis, Options in
EXPERIEN	NCE		
<ul> <li>Collab</li> <li>Current</li> <li>X Corporat</li> </ul>	oped Excel spreadsheet model for valuation of the start-up's reven- orated with management team in researching and identifying mark- ntly working on evaluating strategies to be adopted for market depl <b>ion, City, State</b>	ket segments for the new pro	duct.
Part-time Co • Optim	onsultant ized and redesigned the system to reduce manufacturing costs by 4 ised final results of analysis to senior management at the client site		
Intern for P Delibe Identif	Product Design, Indian Institute of Science, Bangalore, India <i>brogram in Teaching Innovation</i> brated with professors and fellow students on issues concerning ban fied and specified strategies aimed at teaching innovations and tran- mented a key objective by developing a flexible teaching tool for a	slated them into actionable	
Technical A	c <b>tronics Limited, Bangalore, India</b> . <i>nalyst</i> zed a structural component and identified its critical design parame	aters	2009
	igned and optimized the component.		
LEADERSI	HIP		
engine studen • Innov: • Comm gradua • Circul 5000 c	Course Coordinator, MIT – Formulated the syllabus and develop ering course. Organized lectures and led undergraduate assistants ts ative Teaching, MIT: Formulated new teaching approaches as pa nunity Service Officer, MIT – Planned and organized community at students. Received Outstanding Officer Award for organization lation Manager and News Reporter, Graduate Student News M copies of magazine on MIT campus. Popularized Cryptic Crosswor or, IIT Madras – Mentored 15 freshmen during the senior year at	in conducting lab tutorials for rt of an HP sponsored focus v events for fostering greater onal excellence. <b>Magazine, MIT:</b> Managed n rds at MIT.	or 200 undergraduate group trial. interactions amongst
INTEREST	'S AND ACTIVITIES		
	g Traching Innovations News Rep	porting 🛠 Tennis 🛠 Piano	
Story-Tellin			

EDUCATION	4	
June 2013	<ul> <li>MIT, Department of Urban Studies and Planning</li> <li>Candidate for Master in City Planning, specialization in Environmental Policy and Planning</li> <li>Relevant coursework: Energy Policy for a Sustainable Future, Sustainability in Action, Negotiation Dispute Resolution, Transportation and Environmental Limits, and Operations Management, En</li> <li>Master's thesis: "Making Energy Efficiency Desirable: Lessons from a Cutting-Edge Program in M</li> <li>Participated in the MIT Energy Efficiency Strategy Project, lead by Harvey Michaels, to scale up e</li> <li>Switzer Foundation Environmental Fellow 2010</li> </ul>	vironmental Lav inneapolis"
May 2007	Wellesley College	Wellesley, M
	<ul> <li>Bachelor of Arts magna cum laude in Biological Sciences and Studio Art</li> <li>Relevant coursework: Terrestrial, Marine, Freshwater Ecology, Environmental Policy, Printmakin</li> <li>Ist year distinction award, elected to Phi Beta Kappa as a junior</li> </ul>	ng and Drawing
EXPERIENCE		
Sept 2011- Present	<ul> <li>MIT, Department of Urban Studies and Planning, Research Assistant</li> <li>Researched city sustainability initiatives for Urban Sustainability Assessment.</li> <li>Conducted a literature review and interviews with 12 city staff to assess which city energy efficit designs led to significant results; presented results at American Planning Association conference</li> <li>Collaborated with Professor Judy Layzer on conference paper for the American Political Science entitled "What Works and Why? Evaluating the Effectiveness of Cities' Sustainability Initiatives."</li> </ul>	April 2012 Association
August 2008- August 2011	<ul> <li>Energy Solutions, Project Manager II, promoted from Project Manager in 2010</li> <li>Consulted with clients on a variety of energy efficiency programs, including: Client: Cool Roof Rating Council</li> <li>Acted as the director of a non-profit organization, the Cool Roof Rating Council, which maintai international rating system for the energy efficiency of roofing products.</li> <li>Managed 8 staff and a \$700,000 budget to rate products and develop new technical and marketi Facilitated the Board and Technical Committee meetings; created meeting agendas, drafted tech proposals, and developed industry support for the organization.</li> <li>Presented at 6 industry association events, wrote and edited 4 articles for industry publications.</li> </ul>	ng initiatives. nical and policy
	<ul> <li>Client: Pacific Gas and Electric Company (PG&amp;E)</li> <li>Developed a program to increase compliance with state appliance standards (Title 20).</li> <li>Managed IT infrastructure projects, including the development of a web application and database consumer electronics rebate program that went live and is still in use.</li> </ul>	e for PG&E's
	<ul> <li>Client: California Green Business Program</li> <li>Designed and managed the development of an online application and database for California's G Program to streamline the certification process and track environmental metrics for 9 counties.</li> </ul>	
Nov. 2007- July 2008	<ul> <li>Strategic Energy Innovations, Project Coordinator</li> <li>Managed energy education and efficiency projects, including the Green Schools program for the Energy to reduce energy use in public schools.</li> </ul>	San Rafael, C Alliance to Save
	<ul> <li>Developed energy curriculum and audited 10 participating schools for energy efficiency improve</li> <li>Conducted small business energy auditing training for 5 high school students, managed 3 interns audits to help local small businesses save energy.</li> </ul>	
INTERNSHIP	S	
Summer 2012	<ul> <li>The Clinton Foundation, Climate Positive Development Program</li> <li>Wrote white paper on rationale for the Climate Positive goal to go beyond net zero carbon em</li> <li>Researched and wrote 2 case studies: LED street lighting in Brazil and California transit-orientee</li> <li>Drafted articles and created an html template for their first electronic newsletter.</li> </ul>	
Fall 2005 SKILLS	<ul> <li>Massachusetts Executive Office of Environmental Affairs, State Sustainability Progr</li> <li>Drafted the Massachusetts State Facilities Greenhouse Gas Inventory.</li> <li>Researched and wrote proposals on distributed generation and solar panels as highway sound b</li> </ul>	

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DUCATION	Fall 2013
Aassachusetts Institute of Technology (MIT), Cambridge, MA <i>Candidate for PhD in Urban Political Economy and Governance</i> Dissertation: Out of Control? Local Democracy Failure and Fiscal Control Boards	ran 2013
rinceton University, Princeton, NJ S.S.E., Civil Engineering with Architecture, summa cum laude	2006
XPERIENCE	
Community Innovators Lab, MIT, Cambridge, MA Project Manager, "Innovation and Equity Transform America"; Research Assistant	2011-current
<ul> <li>Authored federal taxation memo, coordinated authors, and wrote abstracts for memos to the Presidential</li> <li>Drafted grant proposals and policy memos. Participated in designing a model for equitable and compreh Currently collaborating with local and national labor and community groups on implementation.</li> </ul>	
Department of Urban Studies and Planning, MIT, Cambridge, MA Teaching Assistant	2007-2011
<ul> <li>Conducted seminars, graded essays, and contributed to curriculum design. Classes taught totaled over 2 comprised a doctoral research seminar, undergraduate policy course, and three masters planning courses taught graduate mini-seminar.</li> </ul>	
Brookings Institution, Washington, DC Brookings Research Fellow	2010-2011
<ul> <li>Awarded first pre-doctoral fellowship for dissertation research granted by the Metropolitan Policy Progr</li> <li>Created a dataset compiled from government sources on municipal finances and socioeconomics. Progr</li> <li>regressions to measure the impact of fiscal control boards in small cities. Performed qualitative case stude</li> <li>boards of Miami and Washington, DC through interviews with key actors, archival research, and evaluate</li> <li>Presented at two national academic conferences for Political Science (7,200 attendees) and Planning (1,000)</li> </ul>	ammed rare-events lies on the control ting financial reports.
23 Planning Practice Project, MIT, Cambridge, MA Research Assistant	2009–2010
<ul> <li>Researched four medium-size cities and their innovative community planning organizations. Profiled pla using national survey data. Created and maintained the project website.</li> </ul>	anners of small cities
Jrban Institute, Urban-Brookings Tax Policy Center, Washington, DC Research Associate II; Research Assistant	2007-2009
• Analyzed tax policy using statistical programs (SAS and Stata), with a focus on the distributional impac	-income residents.
<ul> <li>Analyzed tax poincy using statistical programs (SAS and Stata), with a focus on the distributional impact legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> </ul>	
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> <li>New York City Nonprofits Project, New York, NY</li> </ul>	2005–2006
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> </ul>	
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> <li>New York City Nonprofits Project, New York, NY Research Assistant         <ul> <li>Developed a strategy to determine the economic impact of the non-profit sector on the city.</li> </ul> </li> <li>Professor Julian Wolpert, Princeton University, Princeton, NJ</li> </ul>	
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> <li>New York City Nonprofits Project, New York, NY Research Assistant</li> <li>Developed a strategy to determine the economic impact of the non-profit sector on the city.</li> </ul>	2005–2006 2005
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> <li>New York City Nonprofits Project, New York, NY</li> <li>Research Assistant         <ul> <li>Developed a strategy to determine the economic impact of the non-profit sector on the city.</li> </ul> </li> <li>Professor Julian Wolpert, Princeton University, Princeton, NJ</li> <li>Research Assistant         <ul> <li>Wrote a memo detailing the spillover effects of non-profits and value of non-profit tax exemption, focus</li> </ul> </li> <li>FELLOWSHIPS AND AWARDS</li> </ul>	2005–2006 2005 sed on Philadelphia.
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> <li>New York City Nonprofits Project, New York, NY</li> <li>Research Assistant <ul> <li>Developed a strategy to determine the economic impact of the non-profit sector on the city.</li> </ul> </li> <li>Professor Julian Wolpert, Princeton University, Princeton, NJ</li> <li>Research Assistant <ul> <li>Wrote a memo detailing the spillover effects of non-profits and value of non-profit tax exemption, focus</li> </ul> </li> </ul>	2005–2006 2005 ed on Philadelphia.
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> <li>New York City Nonprofits Project, New York, NY Research Assistant <ul> <li>Developed a strategy to determine the economic impact of the non-profit sector on the city.</li> </ul> </li> <li>Professor Julian Wolpert, Princeton University, Princeton, NJ Research Assistant <ul> <li>Wrote a memo detailing the spillover effects of non-profits and value of non-profit tax exemption, focus</li> </ul> </li> <li>FELLOWSHIPS AND AWARDS <ul> <li>National Science Foundation Graduate Research Fellow, 3 years (2009-2012); MIT Presidential Graduate Fellow</li> <li>reliowship, 3 years (2009); Civil and Environmental Engineering Book Award and David W. Carmichael Prize, PROFESSIONAL AND PUBLIC SERVICE</li> </ul> </li> </ul>	2005–2006 2005 ed on Philadelphia. and Department Princeton (2006).
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> <li>New York City Nonprofits Project, New York, NY</li> <li>Research Assistant <ul> <li>Developed a strategy to determine the economic impact of the non-profit sector on the city.</li> </ul> </li> <li>Professor Julian Wolpert, Princeton University, Princeton, NJ</li> <li>Research Assistant <ul> <li>Wrote a memo detailing the spillover effects of non-profits and value of non-profit tax exemption, focus</li> </ul> </li> <li>FELLOWSHIPS AND AWARDS</li> <li>Vational Science Foundation Graduate Research Fellow, 3 years (2009-2012); MIT Presidential Graduate Fellow</li> <li>Fellowship, 3 years (2009); Civil and Environmental Engineering Book Award and David W. Carmichael Prize,</li> </ul>	2005–2006 2005 ed on Philadelphia. / and Department Princeton (2006). e Resident Tutor, MIT
<ul> <li>legislation, the interaction of tax policies and valuation of fringe benefits, and state code relevant to low.</li> <li>Designed, launched, and maintained the Tax Policy Center website for press, policymakers, and research received over 12,500 hits per day and was praised by Forbes, National Journal, and Business Week.</li> <li>New York City Nonprofits Project, New York, NY Research Assistant <ul> <li>Developed a strategy to determine the economic impact of the non-profit sector on the city.</li> </ul> </li> <li>Professor Julian Wolpert, Princeton University, Princeton, NJ Research Assistant <ul> <li>Wrote a memo detailing the spillover effects of non-profits and value of non-profit tax exemption, focus</li> </ul> </li> <li>FELLOWSHIPS AND AWARDS <ul> <li>Vational Science Foundation Graduate Research Fellow, 3 years (2009-2012); MIT Presidential Graduate Fellow</li> <li>YeroFESSIONAL AND PUBLIC SERVICE</li> </ul> </li> <li>Student representative, PhD Committee, Department of Urban Studies and Planning, MIT (2009-2011); Graduate 2010-2011); High school tutor, Maya Angelou Public Charter School, Washington, DC (2010-2011); Tax prepa</li> </ul>	2005–2006 2005 ed on Philadelphia. / and Department Princeton (2006). e Resident Tutor, MIT

#### **Ph.D.** Interested in Consulting Rm. 12-170, M.I.T., 77 Mass Ave. • Cambridge, MA 02139 • Phone: 617-XXX-XXXX • Email: imastudent@mit.edu MASSACHUSETTS INSTITUTE OF TECHNOLOGY Education Cambridge, MA Candidate for Ph.D. degree in Material Science & Engineering, June 2014 Used stochastic simulation techniques to gain new insights into polymer structure. Established collaboration with experimental group in the Mechanical Engineering Dept. Pursuing unique integrated approach to develop new molecular models better suited to designing optimal industrial processes. GPA: 4.9/5.0 Minor: Business Administration at the Sloan School of Management, MIT Business Courses: Management of Innovation and Technology, International Management, Entrepreneurship, Microeconomics, Macroeconomics, Management and Policy in the International Economy, Marketing, Finance Theory, Options and Derivatives, Investment Banking, Operations Research, all with grade A. Master of Science in Chemical Engineering Practice, January 2009. TRINITY COLLEGE, CAMBRIDGE UNIVERSITY United Kingdom Master of Engineering, June 2006 Class Rank: 2 Bachelor of Arts with Honors in Natural Science and Chemical Engineering, June 2005 Class Rank: 1 INDUSTRY INTERNSHIPS Experience MERCK PHARMACEUTICALS (Summer 2008) West Point, PA Team Leader: Found systematic method to raise glass transition temperature of vaccines. This allowed a higher storage temperature for the vaccines. Generated \$5million annual saving in refrigeration costs. DOW CHEMICALS (Summer 2007) Plaquemine, LO Intern: Wrote software for simulating complex distillation processes, adopted throughout Dow Chemicals. DOW-CORNING (September-November 2007) Midland, MI Team Leader: Removed a bottleneck to allowing doubling of a plant's capacity. \$10million capital savings. UNITED KINGDOM ATOMIC ENERGY AUTHORITY (Summers, 2001-2005) **United Kingdom** Intern: Worked for fluid mechanics groups on technical consulting projects for the petroleum industry. Frequently delivered presentations to clients. Incorporated new algorithms into pipeline simulation modules and achieved tenfold increase in speed. Developed strategies to reduce pipeline erosion. Improved reliability of flowrate measurement devices in oil pipelines to allow clients to better monitor throughputs. MIT PRESIDENT, STUDENT LEADERSHIP COUNCIL OF MATERIAL SCIENTISTS (2011 - present) Leadership Leader in group of 200 students that promotes collaboration between five major research universities. Organized videoconferences to allow students to share research ideas. Planning summer retreat to further student collaboration. Investigating ways to promote science and technology in secondary schools and the community. STUDENT REPRESENTATIVE, MIT MATERIAL SCIENCE & ENGINEERING DEPT. STUDENT **AFFAIRS COMMITTEE (2011 - present)** Leading student / faculty discussion on ways to enhance student / advisor interaction. TEACHING ASSISTANT, MIT MATERIAL SCIENCE & ENGINEERING DEPT. (Fall semester 2010) Organized tutorials to clarify course material. Wrote instruction manual to help students use math software. Class scored 7% higher in final than any of the professor's former classes. U.K. COORDINATOR, EUROPEAN CLUB CAREER FAIR (2006) Awards, Winner of National Science Foundation Poster Competition (1012); Sigma Xi Engineering Research Honors Honors Society (2010); Harvey Stern Fellowship, MIT (2009); Fox Prize for Outstanding Performance in Chemical Engineering, Cambridge University (2006); Verhaydn de Lancy Prize for Outstanding Contribution to Trinity College (2005); Mobil Prize for Best Performance in Chemical Engineering, Cambridge University (2005); Senior Scholarship for Outstanding Academic Performance, Trinity College, Cambridge (2004); Student Scholarship, United Kingdom Atomic Energy Authority (2002-2006) Activities Dancing (MIT Salsa Club), Classical Guitar, MIT Debating Club, MIT European Club Soccer Team

	ANONYMOUS STUDENT	
	100 Any Ave., Cambridge, MA 02140 home 617-XXX-XXXX, mobile 617-XXX-XXXX, anonymous@mit.edu	
Objective	Associate position in environmental consulting applying geochemical knowledge and gain experience in environmental economics and regulations.	ing
Education Jan. 2012	<ul> <li>MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA</li> <li>Ph.D. Department of Earth, Atmospheric and Planetary Sciences.</li> <li>Thesis: Petrology and Geochemistry of High Degree Mantle Melts.</li> <li>Combined thermodynamic, trace element, and geodynamic models to constrain complex melting processes.</li> </ul>	E
2001-2005	HARVARD UNIVERSITYCambridge, MAB.A., Dept. of Earth and Planetary Sciences, Cum Laude.• Broad geology coursework including surface processes and sedimentary petrology.	
Experience Jan. 2012-present	BOSTON UNIVERSITY       Boston, MA         LECTURER. Department of Earth Sciences.       Course: Introduction to Geochemistry. Covers igneous and environmental geochemistry element transport mechanisms, and kinetics.	,
Jan. 2012-present	<ul> <li>MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA</li> <li>POSTDOCTORAL RESEARCHER. Dept. of Earth, Atmospheric and Planetary Sciences.</li> <li>Estimating pressure and temperature conditions beneath the Aleutian Islands using combination of experimental observations and thermodynamic modeling.</li> </ul>	
2005-2012	<ul> <li>MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA RESEARCH ASSISTANT. Dept. of Earth, Atmospheric and Planetary Sciences.</li> <li>Constructed thermodynamic computer code (MatLab) to predict the distribution of major elements in solid and fluid phases during melting of the interior of the Earth.</li> <li>Modeled trace element distribution in geologic samples.</li> <li>Constructed geophysical model of mantle convection using existing finite-element code</li> <li>Developed experimental and analytical techniques to provide data for models.</li> <li>Taught lab section of courses in Mineralogy and in Igneous and Metamorphic Petrology</li> <li>Mentored 5 undergraduate research projects in geochemistry.</li> </ul>	
2004-2005	<ul> <li>HARVARD UNIVERSITY Cambridge, MA UNDERGRADUATE RESEARCHER. Dept. of Earth and Planetary Sciences.</li> <li>Constructed compositional model of the Earth's deep interior by comparing theoretical seismic velocity of experimental charges with observed seismic velocities.</li> <li>Performed and analyzed ultra-high pressure experiments.</li> </ul>	
Skills	<b>Computer:</b> MatLab, some HTML and VBA, convection modeling using pre-existing finit element code, PC and Mac spreadsheet, text, and drawing programs (Illustrator, Canvas, <b>Analytical:</b> Electron microprobe, ion microprobe, XRF, ICP-MS.	
Awards/Activities	National Merit Scholarship (2001-2005), Best Senior Thesis - Harvard Geology Club (200 Officer - Harvard Geology Club (2004-2005), Chairman of Board - Agassiz Cooperative Preschool (2008-2009), ultimate, basketball, hiking, gardening, reading.	15).
Publications	2 first author (refereed), 1 co-author (refereed), 8 conference presentations, and 5 co-author presentation abstract. A detailed list of publications is available upon request.	or o

#### A.N. ALUM

#### 123 Infinity Avenue, Cambridge, MA 02139, analum@alum.mit.edu, 617-XXX-XXX

#### SUMMARY

Accomplished strategy and finance professional with extensive experience in health care, financial services, energy, and education. Proven track record of improving client and firm performance across a broad range of corporate, not-for-profit, and government organizations. Strong ability to manage senior-level relationships and cross-functional teams.

#### EXPERIENCE

#### MIT MEDIA LAB, Cambridge, MA, 2012-Present

- Co-led prototype development of virtual rehabilitation interface integrating clinical and home-based physical therapy.
- Interviewed clinicians to determine key specifications required for effective treatment in home and clinical settings.
- Collaborated on proposal that won \$100,000 innovation grant to further develop technology.

#### XYZ PUBLIC CHARTER SCHOOLS, Washington, DC, 2011

Led development and initial launch of performance management system to improve operational and academic
excellence of network of ten schools with over 5,000 students, 500 staff, and \$70 million operating budget.

#### GLOBAL INVESTMENT FIRM, New York, NY and San Francisco, CA, 2009-2011

#### Senior Associate, Global Analytics

- Managed financial analysis and due diligence for over \$2 billion in private equity financing for investment acquisition targets in transportation, energy, clean technology, and real estate sectors. Negotiated and oversaw contracts and relationships with engineering, real estate, accounting, and investment banking advisory firms.
- Evaluated strategic market opportunities in clean technology sector, including potential investments in wind turbine technology and carbon markets. Firm subsequently invested in several carbon reduction projects.
- Delivered presentations on strategic analysis, financial valuation, and due diligence of potential investments to Board members and senior executives of Babcock & Brown, portfolio companies, and prospective investment targets.
- Streamlined investment review process firmwide, resulting in improved financial and risk analysis.

#### AN INVESTMENT BANK, New York, NY, 2002-2006

#### U.S. Economist, Associate Director

- Collaborated with retail and institutional investor sales force to increase distribution of U.S. economics research products that reached hundreds of thousands of clients. Advised large institutional investor clients on U.S. economics forecasts and research products and conducted customized client research.
- Managed launch of new research products from concept to distribution across sales channels. Led writing, production, and distribution of 200-page Data Decoder reference book, successfully positioned as flagship UBS research product
- Spearheaded integration of people, processes, and systems between PaineWebber U.S. Economics Team and UBS Global Economics Team following merger. Completed full integration six months prior to all other Research Teams and advised senior management on integration of remaining 150 PaineWebber Analysts.

#### WORLD BANK, Washington, DC, 2000-2003

#### Research Analyst, Development Economics Research Group

- Evaluated capital structure and corporate governance of 4,000 firms in Indonesia, Korea, Malaysia, Philippines, and Thailand before and after 1997 financial crisis to inform policy response.
- Prepared reports and presentations of survey findings for senior government officials, global business leaders, senior World Bank officials, and international press. Organized conference in Bangkok for key Asian cabinet ministers and World Bank officials to discuss findings.
- Designed and evaluated randomized trials of education programs across 300 schools in Kenya. Led 10-person team in
  overhaul of data management process to improve accuracy and analysis of 20,000 student records.

#### **EDUCATION**

#### UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

The Wharton School, Master of Business Administration, Major in Finance. August 2008.

Graduate School of Education, Master of Science in Education, Major in Educational Leadership. May 2007

 Extensive experience in strategic planning and business development for organizations including Mastery Charter Schools, Victory Schools, School District of Philadelphia, and Association for Sustainable Economic Development.

#### MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA

Bachelor of Science, Major in Economics. June 2000. GPA: 4.5/5.0

#### ADDITIONAL INFORMATION

- Computer skills: Competency in Excel financial modeling, Powerpoint, Access, SQL, SAS, Windows, and Mac OS.
- Languages: Written and spoken fluency in Spanish. Conversant in Mandarin Chinese.
- International experience: Worked in Chile, Peru, Mexico, Thailand, and Kenya. Studied for one year in Chile.

## **CV** Guidelines

A curriculum vitae (CV) is a summary of your experiences and educational background. While it can resemble a resume, a CV is most often used when applying for a teaching or research opportunities, applying for a grant or fellowship, or for further academic training. The process will be similar to the process of writing a resume, however, CVs are frequently longer and include much more detailed information.

Include the following relevant information in your CV:

- *Identifying Information*: Name, address, phone, and email.
- *Education*: In reverse chronological order, list your expected degree, previously earned degrees, majors, institutions, and dates of completion.
- **Dissertation**: Put the title and short description of your thesis.
- Areas of Research Interest, Specialization or Competence: Here you will want to include any

expertise or principal research and teaching interests.

- **Experience**: This is often divided into categories such as research experience, teaching experience, industry experience, and professional experience.
- *Fellowships, Awards, Honor*. Include date awarded and monetary amount if appropriate
- *Memberships or Professional Affiliations*: List all positions held or memberships.
- *Languages*: List languages where you are proficient, fluent, or have basic skills.
- **Publications and Presentations**: Provide a full list of your authored publications and presentations.
- **Others**: This might include works in progress, references, or dissertation abstract.

Remember to tailor your CV to the position!

Category	Curriculum Vitae	Resume
What is it?	A full list of your professional and educational history.	A selection of your experience and skills that are most pertinent to the advertised position.
How long is it?	May be many pages; length is not important.	Usually one page only for entry-level positions. Multiple pages may be appropriate for more advanced or research-oriented positions.
When do you use it?	Used for academic positions and research positions in government and industry.	Used for every other type of job outside of academia and research science.
Do you include your publications?	A full list of publications is essential.	Even a partial list of publications is rarely included.
How important is style and layout?	Content is what matters most. As long as material is clearly presented, style doesn't matter that much.	Style and content are both important. Bad style is a liability.
Are references listed?	Typically references are listed at the end of the CV.	References are not listed on a resume. If requested, you may submit a separate list of relevant references.

## **Differences Between a CV and Resume**

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## Sample CV #1

Caltech, Department of Chemistry Pasadena, CA Organic Chemistry. Teaching Assistant. Helped write problem sets and exams. Assisted students individually with homework problems or material they found difficult to understand. (September 2009 - June 2010) Introductory Chemistry. Head Traching Assistant	introductory Chemistry, tread I caching Assistant. Prepared teaching materials including problem sets and exams. Supervised other teaching assistants and graders. Addressed individual students' questions and needs. (January - June 2008)	Organic Chemistry Laboratory. Teaching Assistant. Supervised and instructed students in organic chemistry techniques. Emphasized keeping complete and accurate scientific notes. (January - June 2005)	Howard University Department of Chemistry Washington, D.C. Laboratory Techniques in Organic and Inorganic Chemistry. Teaching Assistant. Supervised and assisted students with multi-step syntheses of compounds designed to teach senset all aboratory techniques. (January - June 2005)	"Recognition of 5'.(A.T)GG(A.T)2-3' Sequences in the Minor Groove of DNA by hairpin Polyamides." J. Doe, E.E. Cummings, and J.J. Reynolds. Western Biotech/ ACS Regional Conference in San Diego, CA. October 19, 2009.	"Synthesis and DNA Binding Studies of Imidazole-Containing and Amidine-Linked Analogs of Distamycin A." J. Doe, A.L. Brown, and M. Kinney. Fifth National Conference on Undergraduate Research in Pasadena, CA. April 2005.	"Optimization of the Hairpin Polymide Design for Recognition of the Minor Groove of DNA," J. Doe, B.B Cummings, and J.J. Reynolds, Journal of the American Chemical Society, 2010, 5, 118, 1047.	"Recognition of 5'.(A.T)GG(A.T)2.3' Sequences in the Minor Groove of DNA by Hairpin Polyamides." J. Doe, B.B. Cummings, J.J. Reynolds, Journal of the American Chemical Society, 2010, 118, 6153.	"Simultaneous Binding of Polyamide Dimers and Oligonucleotides in the Minor and Major Grooves of DNA." J. Doe, J.J. Reynolds, Bioorganic Medical Chemistry, 2010,5,1045.	"Cyclic Polyamides for Recognition in the Minor Groove of DNA." L. Lyne, J. Doe, J.J. Reynolds, Proceedings of the National Academy of Sciences, USA, 2009, 93, 10389.	Officer, Member, MIT Association of Postdoctoral Women. Member, American Chemical Society, 2003-present. Organized Organic Chemistry Seminar Series at Caltech, 2006-07. Volunteered at the Hunting Memorial Hospital Extended Care. Member, Howard University Marching and Symphonic Bands. Interests include trav- eling, reading, running marathons, hiking, backpacking, and cooking.	Professor X         Professor Y         Professor Z           Chair, Chemistry Department of Chemistry         Department of Chemistry         Department of Chemistry           M.T.         M.T.         M.T.         California Institute of Technology           77 Massachusetts Ave., 11-22         77 Massachusetts Ave., 11-22         77 Massachusetts Ave., 11-21         400 Rodeo Dire, 44-50           617-253.000         617-253.1111         908.570.000         305.570.000           617-253.000         617-253.1111         908.570.000         306.570.000
Teaching Experience				Presentations		Publications				Activities	References
Home Address 10 home Street Apt. # 2D Cornisb N1H7245		e Cambridge, MA I Fellow. Department of Chemical sulation of ribonucleic acid (RNA) into poly- cells. (August 2010-present)	Pasadena, CA 110. Thesis: Sequence-Specific Recognition of and Pyrrole-Containing Polyamides.	Washington, DC Cum Laude, April 2005. Participated in 1 resulting in thesis and presentation. Thesis: Amidine-Linked Analogs of Distamycin.	Hirakata City, Japan led Japanese language and intercultural com- y. (August - December 2004)	011), Howard Advantage Student (2004), Phi lowship (2005-2006), National Institutes of	ering Cambridge, MA Cambridge, MA Divencies acid encapsulation in nanosphere	or utimate use in gene transpy applications. the polymer/RNA nanospheres for ese polymer synthesis and characterization, present)	Pasadena, CA of minor groove of double-helical DNA- de gel electrophoresis Results from this work	o pyrrote-imidazote polyamides and provided ence-specific DNA-binding polyamides. vely. Techniques used include synthesis, umanography. polyaerylamide gel electropho- ding HF cleavage and deprotection, oligo-	lioactive labeling of DNA, cloning specific ag. (September 2005 - May 2010) remistry Washington, DC tet distarrycin A, which binds to DNA in the cole chemistry with amidine linkages and end DNA. (June - August 2004)
Jane Doe Business Address Massebusers Institute of Technology 89 Ames Street 61-210 Combidion: MA 02130 Combidion: MA 02135		Massachusetts Institute of Technology Cambridge, MA National Institutes of Health Postdoctoral Fellow. Department of Chemical Engineering. Research focuses on encapsulation of ribonucleic acid (RNA) into poly- mer nanospheres for delivery to human cells. (August 2010-present)	California Institute of Technology Pasadena, CA Ph.D. Department of Chemistry, May 2010. Thesis: Sequence-Specific Recognition of DNA in the Minor Groove by Imidazole and Pyrrole-Containing Polyamides.	Howard University Washington, DC Bachelor of Science, Chemistry, Magna Cum Laude, April 2005. Participated in summer undergraduate research program resulting in thesis and presentation. Thesis: Synthesis of Imidazole-Containing and Amidine-Linked Analogs of Distamycin.	Kansai Gaidai Foreign exchange student. Studies included Japanese language and intercultural com- munication. Lived with a Japanese family. (August - December 2004)	Carolyn Vogel Chemistry Scholarship (2011), Howard Advantage Student (2004), Phi Beta Kappa (2004), General Electric Fellowship (2005-2006), National Institutes of Health Postdoctoral (2010).	MIT Department of Chemical Engineering Cambridge, MA Advisor. John Smith Currently developing methodology for ribonucleic acid encapsulation in nanosphere	particles using bootegradole polymers for futurate use in gene transpy applications. Examining methods for chemical derivation of the polymer/RNA nanospheres for targeting specific cell types. Work involves polymer synthesis and characterization, GPC, cellular targeting. (August 2010 - present)	Caltect Department of Chemistry Pasadena, CA Advisor: Brian Jones Explored sequence-specific recognition of minor groove of double-helical DNA- binding properties through polyacrylamide gel electrophoresis. Results from this work	expanded sequence reperion evaluable to pyrrole-initiazione polyanudes and provided general circita for design of future sequence-specific DNA-binding polyanudes. Determined compatibility of oligonucleotie and a polyinide binding simultaneously in the major and minor grooves, respectively. Techniques used include synthesis. NMR spectroscopy, HPLC, column chronnalography, polyarvylamide gel electropho- resis, solid-phase peptide synthesis including HF cleavage and deprotection, oligo-	nucleotide synthesis and purification, radioactive labeling of DNA, cloning specific sequences into plasmids, DNA sequencing. (September 2005 - May 2010) <b>Howard University, Department of Chemistry</b> Washington, DC Adviser: Phillip Grey Synthesized analogs of the natural product distamycin A, which binds to DNA in the minor groove. Synthesis involved imidizoole chemistry with antidine linkages and end groups for electrostatic interaction with DNA. (June - August 2004)

#### • Determined the solubility of He in olivine with the goal of understanding the extent the disparate fields of high-temperature igneous geochemistry and low-temperature Responsible for teaching lab component of class. Assisted in development of lab cur-Anonymous Student 1, Grove TL, Dann JC (Kaapvaal conference, 2011) The genera codes. This geodynamic study was combined with petrologic data to constrain the mantle at transition zone pressures. The calculations were used to evaluate various separate classes. Challenge was to compress three semesters of work into one, while · Constrained the composition of the mantle transition zone by comparing observed · Modeled the flow of mantle in subduction zones using pre-existing finite element · Responsible for entire curriculum. Developed a coherent framework under which curriculum. This was the first time this class was taught. Previously existed as three experiments and analyzing results with electron microprobe. The measured phase proportions and compositions were used to calculate the seismic velocities of the Other experimental projects include the solubility of Fe in AuPd alloys, textural studies of komatilites, and development of the multi-anvil device at MIT. (2005-Cambridge, MA Responsible for teaching lab component of class. Assisted in development of lab Cambridge, MA Cambridge, MA Cambridge, MA • Work involved running ultra-high pressure (up to 2.3 GPa) phase equilibrium aqueous geochemistry could be seen as different applications of the same geofocused on teaching students fungible geochemical skills. (Jan. 2012-present) · Initiated use of computer modeling in teaching geochemical principles. Have Boston, MA Igneous, Metamorphic, and Sedimentary Petrology. Teaching Assistant. Harvard University, Department of Earth and Planetary Sciences Introduction to Geochemistry. Lecturer (1 term replacement position). riculum. Updated and revised existing lab assignments. (Fall, 2009) Assisted with labs. Graded homework assignments. (Spring, 2006) tion of Barberton komatiites in an Archean subduction zone. temperature and viscosity structure of the sub-arc mantle **Boston University, Department of Earth Sciences** compositional models. (June, 2003 - June, 2005) acrificing as little content as possible. (Fall, 2007) MIT, Dept. of Earth, Atm. and Planet. Sciences MIT, Dept. of Earth, Atm. and Planet. Sciences MIT, Dept. of Earth, Atm. and Planet. Sciences of degassing and convection in the deep mantle. Beyond the Solar System. Teaching Assistant. and predicted seismic velocities. Mineralogy. Teaching Assistant. Advisor: Advisor Name chemical principles. Anonymous Student 1 - Page 2 2012) Presentations Experience Teaching · Estimated the secular cooling of the Earth's mantle by applying predictive model to Postdoctoral Researcher. Department of Earth, Atmospheric and Planetary Sciences. Research focuses on the production of magmas in the Aleutian arc using experiments Incorporated experimental data into a predictive thermodynamic model of hydrous region of Aleutian arc magmas. Focus is on the effect of water on phase relations · Work involves high pressure experiments, analyses of experimental charges, and Cambridge, MA 02140 Predicted Seismic Velocity of the Mantle Transition Zone Based on High Pressure (Jan. 2006-2012) • Currently quantifying the pressure, temperature, and composition of the source Cambridge, MA Cambridge, MA Cambridge, MA Cambridge, MA Cambridge, MA National Merit Scholarship (2001-2005), Awarded best senior thesis by Harvard • Experimentally determined the thermodynamic effect of water on high degree Ph.D. Department of Earth, Atmospheric and Planetary Sciences, January 2012. · Employed trace element modeling to estimate the effect of metamorphism on BA, Earth and Planetary Sciences, Cum Laude, June 2005. Senior Thesis: The 0 Imaginary Ave. student@mit.edu Home Address: (617) 000-0000 Barberton komatiite bulk samples and to constrain their tectonic setting. MIT, Department of Earth, Atmospheric and Planetary Sciences MIT, Department of Earth, Atmospheric and Planetary Sciences Thesis: Petrology and Geochemistry of High Degree Mantle Melts ANONYMOUS STUDENT 1 Massachusetts Institute of Technology Massachusetts Institute of Technology subduction magmas from 0 to 3.5 Ga. geochemical modeling of data. Phase Equilibria Experiments. and geochemical modeling. Advisor: Advisor Name Advisor: Advisor Name Geology Club (2005). Harvard University mantle melting. mantle melting. Massachusetts Institute of Technology Cambridge, MA 02139 Business Address: Bldg. XX-XXX (617) 253-0000 Experience Education Research Awards

## Sample CV #2

#### See Industry Resume version of this CV on page 44.

## Anonymous Student 1, Grove TL (Goldschmidt, 2010) Compositional effects of H2O saturated liquidus phase relations of komatiite from the Barberton Mountainland, Anonymous Student 1, Grove TL, Dann JC (Komatiites, Norites, Boninites and Dann J, de Wit M, Grove TL and Anonymous Student 1 (IAVCEI, Cape Town, Basalts, 2010) Petrologic and experimental evidence for high H2O contents in 2009) Segregation vesicles in 3.5 Ga komatiites: Barberton, South Africa. Barberton komatiite magmas. on ol-opx saturated melts. South Africa. Anonymous Student 1 - Page 3 http://gecd.mit.edu

Anonymous Student 1, Grove TL (Spring AGU, 2009) High pressure water under-

Calibration Workshop, 2008) Precision and accuracy of pressure in a Walker style Anonymous Student 1, Holzheid AD, Grove TL (First International Pressure multi-anvil device.

convergent plate boundaries, Carnegie Inst. of Washington, Puerto Azul, Phillipines, 2008) Mass transfer processes in the southern cascade subduction zone: the influence Grove TL, Gaetani GA, Anonymous Student 1, Elkins LT (Materials Recycling near of variable water content on mantle melting.

2007) Origin of spinifex textures in 3.49 Ga komatiite magmas from the Barberton Grove TL, Gaetani G, Anonymous Student 1, Dann J, de Wit M (Spring AGU, Mountainland, South Africa. Anonymous Student 1, Grove TL, Dann J, de Wit M (Spring AGU, 2007) Pyroxene compositions in 3.49 Ga Barberton komatiite: evidence of variable H2O contents.

Magmatic trace and minor element abundances in Barberton komatiites inferred from Anonymous Student 1, Grove TL, Shimizu N, Dann J, de Wit M (Fall AGU, 2007) augite compositions

Quantitative estimates of the chemical composition and liquidus temperatures of Anonymous Student 1, Grove TL, Dann J, de Wit M (Spring AGU, 2006) komatiite magmas from the Barberton Mountainland, South Africa Agee CB, Anonymous Student 1 (Fall AGU, 2004) Upper mantle transition zone: a remnant of primordial differentiation?

Agee CB, Li J, Anonymous Student 1 (Spring AGU, 2004) P-T phase diagram for the Allende Meteorite.

Anonymous Student 1 - Page 4 Publications

Boninites, komatiites, and Archean subduction zones. Geophysical Research Letters. Anonymous Student 1, Grove TL, Dann JC, and de Wit MJ (accepted, Feb. 2012)

Mantle Petrology: Field Observations and High Pressure Experimentation: A tribute eration for Archean komatiites from the Barberton Mountainland, South Africa. In Grove TL, Anonymous Student 1, and Dann JC (2010) Conditions of magma gento Francis R. (Joe) Boyd. The Geochemical Society, Special Publication 6, Y Fei, C.M. Bertka and B.O. Mysen, eds., p. 155-167.

Anonymous Student 1, Dann JC, Grove TL and de Wit MJ (2008) Emplacement conditions of komatiite magmas from the 3.49 Ga Komati formation, Barberton Greenstone Belt, South Africa. Earth Planet. Sci. Lett. 150, p. 303-323. Member, American Geophysical Union, 2005-present. Communications Director, Friends of Cambridgeport School, 2001-present. Chairman of the Board, Agassiz Cooperative Pre-School, 2000-2001. Officer, Harvard Geology Club, 1996-1997.

Activities

Dr. Who References Department of Earth, Atmospheric, and Planetary Sciences Massachusetts Institute of Technology Cambridge, MA 02139 USA Bldg. XX-XXXX (617)253-0000 who@mit.edu

Department of Geology and Geophysics Woods Hole Oceanographic Institution Woods Hole, MA 02543 blank@whoi.edu (508)000-0000 Dr. Blank

Department of Earth, Atmospheric, and Planetary Sciences Massachusetts Institute of Technology Cambridge, MA 02139 USA anonymous@.mit.edu Dr. Anonymous Bldg. XX-XXX (617)253-0002

## **Cover Letters**

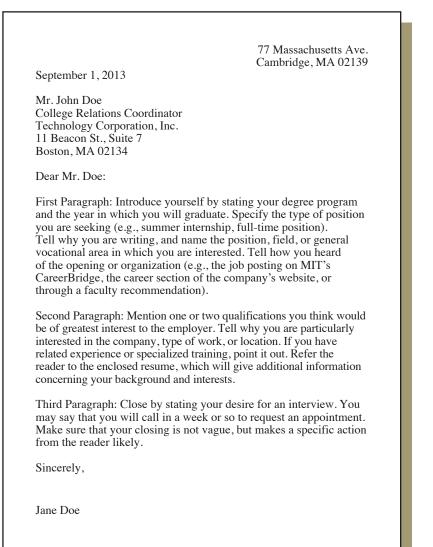
You will have to write a number of letters to employers while looking for a job. One type of letter is the cover letter, which you send with your resume when you are requesting a job interview. Other letters are those you write following up interviews, arranging company site visits, and accepting or rejecting job offers. See the examples on the next pages. Here are some tips:

- State clearly in your opening sentence the purpose for the letter. Then use the rest of the letter to support your candidacy.
- Be sure that each cover letter is specifically tailored to the company to which you are writing. Research the company to help you determine your approach. Check the company's website and other resources on the Internet.
- If you are seeking a position in a field or industry that does not have an obvious parallel or connection to your

academic training, for example, you are an electrical engineer who wants to use his/her quantitative skills in a finance or consulting position — be explicit about why you are interested in that particular field, organization or job, and what value you bring. Do not leave the reader wondering, "Why is an electrical engineer writing to me, the personnel manager of McKinsey?"

- If you are applying for a summer job and do not yet have any experience that is directly related to the position, focus on telling the employer what experience you do have that may be of interest.
- Always try to write to a specific individual and include their job title. Do not address your letter to "Dear Sir or Madam."
- Ask someone else to check your grammar, spelling, and style. When proofreading your own writing, it is easy to overlook silly mistakes.

## Suggested Formula for Cover Letter



#### Sample Undergraduate Management Consulting Cover Letter

Jane Doe XXX Memorial Drive Cambridge, MA 02139 janedoe@mit.edu (617) XXX-XXXX

Recruiter's Name Campus Recruiter Company Name Company Address Boston, MA 02116

June 24, 2013

Dear Campus Recruiter:

I am a senior at MIT majoring in biology with a concentration in management from Sloan Business School. I was extremely impressed with Deloitte's approach to consulting after speaking with Yelena Shklovskaya. Deloitte is unique in having the ability to form diverse teams to tackle all the problems a client may have. As a member of the Strategy & Operations group, I may have the opportunity to meet and work with a variety of people in this consulting group, in other areas of consulting, and outside of consulting as well. In particular, I like the amount of attention and dedication that Deloitte puts into working with its clients, not only by devising effective strategies to address the clients' problems, but also by often implementing the recommendations on-site. Therefore, I am writing to request an invitation to interview for a Business Analyst position with Deloitte.

In the past two years, I have been involved in strategy consulting, pharmaceuticals, and government affairs for a non-profit healthcare organization. This summer, I worked in strategy consulting for Putnam Associates. My 6-member team evaluated the marketing efforts for a major pharmaceutical company's organ transplant drug. Through my management of recruitment and interviews with 98 physicians, I obtained primary research and analyzed it on national and regional levels to recommend and help implement improvements in the client's marketing plan. I learned how to work in a deadline-oriented environment, held responsibility for large segments of a team project, and enhanced my quantitative skills through analysis of primary and secondary research data. In addition, I conducted independent research to form recommendations when launching a drug that follows a related product, and I presented these key considerations to all Putnam employees.

I have been a volunteer in public policy for 7 years with the March of Dimes Birth Defects Foundation. I lobbied Senators at both the Massachusetts and California State Capitols, as well as on Capitol Hill in Washington, D.C. Lobbying has taught me negotiation skills, the need for contingency plans, and the ability to make quick yet innovative decisions. Two years ago, I was appointed Director of Massachusetts Youth Public Affairs and asked to be a member of the state's Public Affairs Council. My responsibilities include developing, organizing, and implementing the Foundation's annual public policy objectives in an ultimately results-driven environment.

Through my experience with Putnam Associates and the March of Dimes, along with my modeling work in the MIT Sloan Business School, I used my management skills to negotiate and consult with others, analytically design a successful plan, and execute my ideas. I am confident that I can bring my strong, diverse technical and business background to best fit the current needs and future ventures of Deloitte.

I welcome the opportunity to speak with you about my qualifications and ways that I can contribute to Deloitte. Thank you and I look forward to hearing from you soon.

Sincerely,

Jane Doe

Jane Doe

Your Name Address Boston, MA 02215

February 10, 2013 Engineering Manager Company Name Address Los Angeles, CA 92008

Dear Engineering Manager,

I will be graduating from MIT in June with a Bachelor's degree in Mechanical Engineering and am interested in opportunities at (name of company). I got your name from (website/ ICAN/other contact person). I am excited about the direction (name of company) is headed and read from your website that you are continually producing innovative products and quality customer service.

I feel that my experiences in both the workplace and at MIT have given me the skills to make a valuable contribution to a future employer. I have taken courses in product design and development, manufacturing, mechanical design, and management in engineering, in addition to MIT's general Mechanical Engineering course requirements. My thesis project is a cataract cryoprobe prototype that should make a significant impact in third world countries, because both doctors as well as trained medical technicians can administer this procedure. This past summer at the Natural Energy Institute, I designed a polycarbonate pressure vessel that will be used for deep-ocean alternative energy simulations.

I would very much like to speak with you further about how I can make a valuable contribution to (your company). Please feel free to contact me by phone at (617) 555-5555 or by email at student@mit.edu. I look forward to hearing from you soon.

Sincerely,

Your Name

Student Enviro Eng Environment St. Cambridge, MA 02139

March 20, 2013

Joan Dough 77 Massachusetts Avenue Cambridge, MA 02139

Dear Ms. Dough

I am a 2013 degree candidate for a Master of Engineering in Environmental Engineering from Massachusetts Institute of Technology. In addition, I received my Bachelor of Science in Civil and Environmental Engineering from Cornell University in 2009. Before pursuing my graduate studies, I worked as a consultant at Camp Dresser and McKee for three years applying my skills to a range of projects including sustainable technology assessments and management of multi-disciplinary, multi-consultant project teams. Based on my work and educational experience, and perhaps more importantly because of my interest and enthusiasm, I think I am well suited to pursue a career in sustainability consulting.

I have a keen interest in the field of global warming and greenhouse gas management. I am currently pursuing this interest through my thesis work: a carbon impact evaluation of proposed hydropower in Chilean Patagonia. During my time as a consultant, I was able to distinguish myself as a proficient and motivated employee. In particular I sought to engage in projects that focused on renewable energy, sustainable design, and energy efficiency. I was also involved in promoting sustainable practices within the company, and initiated an educational conference for public sector clients.

My experience includes: delivering a sustainable technology assessment to compliment a campus' low-carbon design strategy; evaluating the conversion of waste oils to biofuels at a local wastewater treatment plant; and conducting a cost analysis and carbon inventory for the design of a deep heat geothermal energy facility. Therefore, I am highly confident that I can use my skills, knowledge, and enthusiasm to help businesses develop and implement sustainability initiatives.

I welcome the opportunity to speak with you further about potential career opportunities. I can be reached at (617) xxx-xxxx or EnviroEng@mit.edu.

Sincerely,

Student Enviro Eng

7 Consultant Ave. Cambridge, MA 02139 (617) XXX-XXXX ceestudent@mit.edu

December 7, 2013

Mr. Phillip Norse McKinsey & Company, Inc. 10 Innovation Drive Orange County, CA 92617

Dear Mr. Norse,

I am a candidate for Master of Science in Civil and Environmental Engineering at MIT, with a concentration on decision analysis in complex engineering systems. I read your email regarding Operations Practice and talked to Ms. ABC from the Istanbul Office. I am very interested in joining "the Firm" as an Operations Analyst. I believe that a career in management consulting at McKinsey will provide the learning environment and the business exposure necessary to grow as a powerful leader who can see the "big picture".

Being at MIT has given me exceptional opportunities to broaden my vision through a wide variety of courses from both engineering and management disciplines. Throughout my research studies, I applied those principles to develop dynamic investment strategies for large-scale oil development projects. From the technical perspective, I have gained extensive knowledge in complex decision analysis, stochastic modeling, optimization and software development. More importantly, I developed strong interpersonal skills from working closely with many people with different backgrounds, both in academia and industry. One notable experience is my research presentation to the senior executives from BP, which funded my research project for two years. I learned a great deal about communicating highly technical analysis to business people, which I believe is extremely important in management consulting.

Beyond my academic endeavors, I built a successful career as a professional tennis player where my commitment to excellence, passion and hard work helped me win the title of "Turkish Tennis Champion" for four consecutive years and gave me the honor to represent my country on the international arena. I learned to become successful in a competitive environment, to stay committed and to think strategically. Also, I developed many personal skills from involving myself in extracurricular activities. I took initiative in organizing the yearbook activities in college where I gained significant leadership skills such as defining group objectives for a better team alignment and building trust among various entities. I am confident that all these skills will enable me to add value to my role as a successful consultant at McKinsey.

I am particularly interested in McKinsey & Company because it provides a great opportunity to have a world-shaping impact while solving the most challenging problems of the leading institutions around the globe. Operating as "one firm" is one of McKinsey's most distinctive characteristics, which helps it to become a true learning organization. I am eager to be a part of this international network, learn from the experiences of people at McKinsey and contribute to your company through my strong personality.

I would appreciate the opportunity to speak with you further about my qualifications and discuss how I can contribute to McKinsey. Thank you for your time and consideration.

Best Regards,

Civil Enviro Eng Student

#### **Sample Faculty Cover Letter**

Your Name 000 Memorial Drive, # 0000 Cambridge, MA 02139

August 25, 2013

Professor XXXX Search Committee, IT 989 Department of Mechanical Engineering University of XXX Address City, State Zip

Dear Professor XXXX:

I am responding to your advertisement for a faculty position in the Department of Mechanical Engineering at University of XXX. I graduated from the Department of Aeronautics and Astronautics at MIT in June with a doctorate, and am currently working as a Postdoctoral Associate at MIT in the Department of Aeronautics and Astronautics. My thesis work is in the area of active structural acoustic control using smart structures technology, and my specific research topic is the development of a new wavenumber domain sensing method for active structural acoustic control. My thesis advisor is Professor X in the Department of Aeronautics at MIT.

For my Ph.D. dissertation, I have worked on the development of the structural-acoustic control algorithms and their implementation for the reduction of radiated noise from vibrating underwater vehicles. The Office of Naval Research, with an objective of developing "smart" underwater vehicle systems so that the enemy cannot detect their attack in advance, has funded this project. My responsibility in this project is to develop the new technology to reduce the radiated noise from vibrating underwater vehicles. In order to accomplish this, I have developed a new wavenumber domain sensing method and applied it to the real-time estimation of acoustic power and the design of feedback controller for active structural acoustic control of the general complex structures. Furthermore, I have designed and experimentally implemented local and global controller architectures with different configurations to find the best controller configuration for the new underwater vehicle system.

I would like to continue my research on active structural control and active structural acoustic control for complex systems, including aerospace systems (aircrafts, helicopters) and underwater vehicles (submarines, torpedoes). I will carry out research on structure/fluid/control interaction phenomena and advanced sensor/actuator development using smart structures technologies. Also, I will extend my research to the development of advanced control design techniques for noise and vibration reduction of complex systems.

My ultimate research goal is to develop "intelligent structural systems", which will contain arrays of sensors and actuators, and embedded devices for controls and decision-making algorithms, so that those systems can coordinate large numbers of devices and adapt themselves to uncertain environmental changes in an intelligent manner. I believe my extensive research experience and specialization in structural dynamics and controls will allow me to continue my research in those areas.

I have enclosed my curriculum vitae with a list of publications, and a list of references. If you have any questions or would like to talk with me, I can be reached by phone at (617) XXX-XXXX or email at sample@mit.edu. Thank you for your consideration. I look forward to hearing from you soon.

Sincerely,

Your Name

## **Other Career Writing**

#### Dear Ms. XXX:

Professor XXX, a faculty member in the Electrical Engineering and Computer Science department at MIT, suggested I contact you. I have been meeting with Professor XXX as a means of exploring the field of Speech Systems Technology as a potential career option.

He thought you would be a great resource to help me gain insight into the field and focus my job search efforts. I realize your time is very valuable so I am requesting to setup a brief 20-30 minute meeting at your convenience. I would enjoy a chance to ask you some questions.

I have enclosed my resume for your review. I thought it might be useful as a way of informing you of my educational background and experience. I can be reached at mitstudent@ mit.edu or (xxx) xxx-xxxx, or if you prefer I would be happy to contact your office within 10 working days to follow up with this letter. Thank you in advance for your time and effort.

> Requesting to Reschedule an

Interview Due to an

Academic Conflict

Sincerely,

Your Name

Request for Informational Interview

Dear Ms. Harper:

Thank you for the invitation to participate in a site visit at your Seattle headquarters. The opportunity to visit, meet staff and learn more about the opportunities at Javentus is exciting; however, the dates provided for the site visit conflict with my academic commitments. In conjunction with my professors, I have identified other dates in March that would be suitable for me to visit Javentus. Would rescheduling be possible?

Please know that I am extremely interested in the Developer position and working at Javentus. I hope another suitable date for a site visit might be able to be arranged. I look forward to hearing from you but will also be in contact by the end of the week to see if rescheduling might be possible.

Sincerely,

Your Name Name@mit.edu 617-555-5555

## Thank-You/Follow-Up Email

Dear Mr. Smith,

It was a pleasure speaking with you and Mr. Mansfield yesterday, regarding job opportunities at Supa Systems. I am very interested in the work you are doing and am extremely impressed with the advanced applications being used in your company.

As I mentioned during our conversation, my past two summer positions were related to the development and design of software programs for industrial computervision experiments. With my skills and interest in software design, I believe I could be of value to Supa Systems.

Thank you for your time. The interview was very informative. Please let me know if you need any more information about my background. I look forward to hearing from you.

Sincerely,

Your Name Your Contact Information (phone, address, email)

## **Letter Declining a Job**

Dear Mr. Smith,

I am writing to thank you for the offer to join Northeast Electronics Laboratories as member of the research and development staff. Unfortunately, I must decline your offer. I have accepted a position with another company.

It was a difficult decision for me because I was both excited and impressed by the work at Northeast Electronics. I appreciate your giving me the opportunity to meet with you and the members of the research staff.

Again, thank you for your time.

Sincerely,

Your Name Your Contact Information (phone, address, email)

# Chapter 5. Interviewing

## **Preparing for an Interview**

Preparing for your first interview can be nerve-racking. Good preparation will help you control the nervousness and maximize your chances of a successful outcome.

One way to accomplish this is by looking at the results from surveys of employers to discover what are the top characteristics they look for in job candidates.

Take a look at the Top 10 Personal Characteristics, start taking a personal inventory and see how you measure up in these categories. Think of one or two examples when you have proven yourself in these areas in the past and be thoughtful about how these characteristics would be valuable in the workplace environment that you are hoping to get in to.

Do thorough company research including reading annual reports, newspaper articles, and trade journals. Look at the company homepage to find out their mission statement, long-term goals, recent press releases, and to view corporate photos. Do not limit your research only to company-controlled information. Refer to Chapter 2: Researching Companies.

## What Happens During the Interview?

The interview process can be intimidating if you do not know what to expect. To make it easier on you, keep in mind that most interviews fit a general pattern. The typical interview will last 30-45 minutes, although some may be longer. A typical structure is as follows:

- Five minutes: greeting and small talk
- Fifteen minutes: a mutual discussion of your background and credentials as they relate to the needs of the employer
- Five minutes: you have an opportunity to ask questions
- Five minutes: wrap-up/discuss next steps in the process

As you can see, there is not a lot of time to state your case. When you do respond to questions or ask your own, your

(continued on page 60)

## **Interviewing On Campus**

#### **On-Campus Interviews**

On-campus interviewing continues to be a primary source of employment as reported by 33.9% of baccalaureate and 35% percent of master's degree recipients (see 2012 Graduating Student Survey data on page 13). Networking represented the next highest method for baccalaureate degree holders and master's degree recipients.

A database of campus recruiting employers and dates are listed in CareerBridge (see instructions on page 19). Interviews are generally conducted at GECD in 12-172. When you arrive, sign in and wait for the employer to greet you.

#### **Review the Policies on Campus Interviewing**

Interviewing on campus is a privilege that carries certain expectations for student conduct. To clarify the standards, MIT GECD has adopted policies to serve both students and employers. Our policies cover everything from cancelling interviews to extending offer acceptance deadlines. See our Interviewing On-Campus Policies (<u>http://gecd.mit.edu/jobs/find/apply/campus\_interview/policies</u>) for details, and if you have any questions or concerns, please call 617-253-4733 or stop by 12-170 to arrange an appointment with a staff member.

## **How Employers View Candidates**

#### **Skill/Quality**

#### Weighted average rating\*

Ability to work in a team structure	4.60
Ability to verbally communicate with persons inside and outside the organization	4.59
Ability to make decisions and solve problems	4.49
Ability to obtain and process information	4.46
Ability to plan, organize and prioritize work	4.45
Ability to analyze quantitative data	4.23
Technical knowledge related to the job	4.23
Proficiency with computer software programs	4.04
Ability to create and/or edit written reports	3.65
Ability to sell or influence others	3.51

\*5-point scale, where 1 = Not important; 2= Not very important; 3= Somewhat important; 4 = Very important; 5= Extremely important.

Source: Job Outlook 2012 National Association of Colleges and Employers.





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#### (continued from page 58)

statements should be concise and organized. But do not be too brief. This could be your last chance to market yourself to the employer!

## The Greeting, First Impressions and Small Talk

It is a good idea to arrive 10 to 15 minutes before your scheduled time. You can use the time to relax, organize your thoughts, and even wipe your sweaty palms with a handkerchief, if necessary. The recruiter begins to evaluate you the minute you are identified and continues to evaluate you in every way. For example, he or she is analyzing the way you shake hands upon being introduced. Be firm, it shows confidence. Do not be afraid to extend your hand first. This shows assertiveness.

Here are some tips to ensure your first impression is a positive one:

- Appearance counts. When you look good, you feel good. Make sure you look groomed and professional. Your clothes and accessories should be neat, conservative and neutral. Your clothes are your packaging and should not take attention away from the product.
- Nonverbal communication sometimes conveys a stronger message than verbal communication. According to one UCLA study, 93 percent of a person's communication effectiveness is determined by nonverbal communication. Eye contact and smiles can indicate a confident and upbeat attitude. Have a firm (but not too strong) handshake and moderate your voice to sound calm and assertive.
- During the 'settling in' stage of the interview you may engage in brief 'small talk'. This is a good opportunity to demonstrate your social and interpersonal skills as well as your excitement about the opportunity for which you are interviewing. The words you choose will say something about you, as well as your knowledge of the industry. It is important to use "their" words and talk "their" talk.

## **Strategy for Discussing Your Credentials**

The main part of the interview starts when the recruiter begins discussing the organization and asking some questions regarding your past experience related to the position for which you are interviewing. Many times recruiters will ask why you chose the major you did or what your career goals are. These questions are designed to determine your goal direction. Employers seek people who have direction and motivation.

It is a good idea to think about what the recruiter is trying to find out about you when they ask certain questions. For example, if you are asked to discuss a time when you had a conflict with a colleague, keep in mind that the recruiter is looking for someone who is confident about his or her own beliefs, but open to other people's ideas as well. Most of the time, he or she is looking for collaboration and compromise. Always listen carefully to the question, ask for clarification if necessary, and make sure you answer the question completely. Give a specific example and walk through the situation, step by step. A good storytelling technique is a huge plus when interviewing because it keeps the recruiter interested. So give only the essential background information and get to the point!

Your interview preparation should include identifying examples of situations from your experiences on your resume where you have demonstrated the behaviors a given company seeks. Briefly explain a particular situation that relates to the question, not a general one. Describe the situation, tell what you did specifically, and the positive result or outcome. Your answer should contain these four steps (Situation, Task, Action, Result or "STAR") for optimum success.

## STAR Method:

**Situation:** Give an example of a situation you were involved in that resulted in a positive outcome. Give the interviewer enough context about the situation so that they can understand what you are about to tell them, but don't get too bogged down in details.

Task: Describe what you had to accomplish.

**Action:** Talk about the various actions involved in the situation's task. Mention tools and techniques and clearly identify your contributions.

**Results:** What results directly followed because of your actions?

Before the interview process, identify two or three of your top selling points and determine how you will convey these points (with demonstrated STAR stories) during the interview.

It is helpful to frame your answer as a story that you can tell. Typically, the interviewer will pick apart the story to try to get at the specific behavior(s). The interviewer will sometimes ask you open-ended questions to allow you to choose which examples you wish to use. When a part of your story relates to a skill or experience the interviewer wishes to explore further, he/she will then ask you very specific follow-up questions regarding your behavior. These can include "What were you thinking at that point?" or "Tell me more about your meeting with that person." or "Lead me through your decision making process."

Whenever you can, *quantify* your results. Numbers and percentages illustrate your level of contribution and

responsibility. For example: "I was a shift supervisor" could be enhanced by saying " .... as Shift Supervisor, I trained and evaluated four employees."

Be prepared to provide examples of when results did not turn out as you planned. What did you do then? What did you learn? Your resume will serve as a good guide when answering these questions. Refresh your memory regarding your achievements in the past couple of years. Use examples from past internships, classes, activities, team involvements, community service, and work experience.

## **Example of a STAR Answer**

*Situation:* During my internship at \_\_\_\_\_ last summer, I was responsible for managing various events.

*Task:* I noticed that attendance at these events had dropped by 30% over the past three years and wanted to do something to improve these numbers.

Action: I designed a new promotional packet to go out to the local community businesses. I also included a rating sheet to collect feedback on our events and organized internal round table discussions to raise awareness of the issue with our employees.

*Result:* We used some of the wonderful ideas we received from the community, made our internal systems more efficient and visible and raised attendance by 18% the first year.

## **Expect the Unexpected**

During the interview, do not be surprised if you are asked some unusual questions. Many times questions are asked simply to see how you react. For example, surprise questions could range from, "Tell me a joke" to "What time period would you like to have lived in?" These are not the kind of questions for which you can prepare so do not spend time worrying about them in advance. Stay cool, think, and give an honest answer. The employer will evaluate your reaction time and the response you give, but again, there is no way to anticipate questions like these. While these questions are not always used, they are intended to force you to react under some stress and pressure.

During the interview, be prepared to deal with aspects of your background that could be construed as negative, i.e., low grade point average, no participation in outside activities, no related work experience. It is up to you to convince the recruiter that although these points appear negative, positive attributes can be found in them. A low GPA could stem from having to fully support yourself through college; you might have no related work experience, but plenty of experience that shows you to be a skilled and potentially valuable employee.

## It's Your Turn to Ask Questions

When the recruiter asks, "Do you have any questions for me?" it is important to have a few ready. At this point you

are able to ask strategic questions that will elicit positive responses from the employer. The questions should bring out your interest in and knowledge of the organization. Show the recruiter that you have done your homework.

## Wrap Up

The interview is not over until you walk out the door. The conclusion of the interview usually lasts five minutes and is very important. During this time the recruiter is assessing your overall performance.

It is important to remain enthusiastic and courteous. Once you take the cue that the interview is over, stand up, shake the recruiter's hand, and thank him or her for considering you.

## Sample Questions Asked by Employers

#### **Personal Assessment**

- Tell me about yourself.
- What are your greatest strengths and weaknesses?
- What have you done that shows initiative and willingness to work?
- How do you react to criticism?
- How would your best friend describe you?
- Describe your ideal job.
- Define success. Define failure.
- What can you offer us?
- Who are your role models? Why?
- What motivates you to put forth your greatest effort?
- What kind of people do you enjoy working with?
- What motivates you in a job?
- What types of people are difficult for you to work with?
- What frustrates you? (makes you angry?)
- Are you a joiner or a loner? A leader or follower? A committee member or an executive?
- How do you spend your spare time? What are your hobbies?
- Have you ever spoken in front of a group of people? How large?
- Tell me about a leadership role you have had. What makes a good leader?
- Where do you want to be in five years? Ten years?

#### **Education and Experience**

- Can you summarize your educational background for me?
- Why did you decide to attend school at MIT?
- What part of your education did you find the most rewarding?
- Why did you choose the major you did?
- What courses did you like the most? The least?
- Describe for me the most rewarding accomplishment since you've started college.
- Describe your study habits. How do you balance study with personal life?
- In which campus activities did you participate?

- What job-related skills have you developed?
- How do you spend college vacations?
- What extracurricular activities are you involved in? What have you gained from those experiences?
- Have you plans for furthering your education?
- If you could start college over, what would you do differently?
- Tell me about a class in which you were part of a study group. What role did you play?
- Did you work while going to school? In what positions?
- Tell me about the most satisfying job you ever held. The least?
- Have you had any work experience related to this position?
- What kind of boss do you prefer?
- What kind of work interests you the most?
- Have you had any supervisory experience?
- What frustrates you on the job?
- Have you ever quit a job? Why?
- Give an example of a situation where you provided a solution to an employer.
- Give an example of a time when you worked under deadline pressure.
- Have you ever done any volunteer work? What kind?
- How would a former supervisor describe your work?
- Describe a time when you had to go above and beyond the call of duty to get the job done.
- Describe a time when a team member came to you for help. What was the situation? How did you respond?

#### **Career Ambition and Plans**

- Why did you choose this career field?
- What type of position are you looking for?
- What are your long-range and short-range goals and objectives; when and why did you establish these goals; how are you preparing to achieve them?
- What specific goals, other than those related to your occupation, have you established for yourself in the next five years?
- What qualities does a successful manager possess? ... does a successful team player possess?
- What do you know about opportunities in your field?
- What are the most important rewards you expect from your career?
- What kind of challenge are you looking for?
- What do you think determines a person's progress in a good company?
- How do you determine or evaluate success?
- What are your ideas on salary?
- How much money do you hope to earn five years from now?
- What personal characteristics are necessary for success in your field?
- Do you prefer to work on your own or under a supervisor?

## **Company or Organization**

- Why do you want to work for this organization?
- What do you know about our organization?
- What section (service or product) are you most interested in?
- Do you prefer large or small companies? Why?

- How do you feel about working in a structured environment? A non-structured environment?
- What do you think it takes to be successful in a company such as ours?
- In what ways do you think you can make a contribution to our company?
- How long would you expect to work here?
- Are you willing to work overtime?
- Are you willing to work flextime?
- Are you willing to go where the company sends you?
- What type of work environment are you most comfortable with?
- Why do you think you might like to live in the community in which our company is located?
- Why should I hire you?
- What makes you the best person for this job?

#### The Close

- When could you start work?
- Is there anything else I should know about you?
- Do you have any other questions?

## Behavioral Interviews and Sample Questions

Behavioral Interviewing is based on the premise that the most accurate predictor of future performance is past performance in a similar situation. It focuses on experiences, behaviors, knowledge, skills and abilities that are job related. Employers predetermine which skills are necessary for the particular job and then ask very pointed questions to determine if the candidate possesses those skills. For example, if leadership is necessary for a position, you may be asked to talk about an experience in which you were a leader as well as what you think makes a good leader.

## **Examples of Behavioral Questions**

Behavioral questions can be difficult if you are not prepared. Always try to be conscious about what the recruiter is trying to find out about you. Setting up a mock interview with Career Services is an excellent way to practice. Here are some examples:

- Tell me about an accomplishment of which you are especially proud.
- What kind of work experience has been the most valuable to you and why?
- Tell me about a time when you had to deal with someone whose personality was different from yours.
- Give me a time where you had to carry out a directive you did not agree with.
- Describe a time when it was especially important to make a good impression on a customer/teacher/etc. How did you go about doing so?
- Describe a time when you saw a problem and took action to correct it rather than waiting for someone else to do so.

- Tell me about your most successful presentation and what made it so.
- Tell me about a meeting where you provided technical expertise. How did you ensure that everyone understood?
- Tell me about a time when there was a conflict in a job/ lab/class project. How did you handle it?
- Describe a time when you took a risk that you later regretted.
- Describe a time when you took a risk and were glad you did.
- Who or what has had the greatest influence in the development of your career interest?
- What were the biggest challenges/problems you encountered in college? How did you handle them?
- Talk about a time when you had trouble getting along with a professor/co-worker/supervisor. How did you handle it?
- What was the toughest academic decision you have had to make? How did you make that decision?
- How are you conducting your job search and how will you go about making your decision?
- What types of situations put you under pressure and how do you handle them?
- What is the most important lesson you have learned in or out of school?
- Describe a situation in which you were able to use persuasion to successfully convince someone to see things your way.
- Describe an instance when you had to think on your feet to extricate yourself from a difficult situation.
- Give me a specific example of a time when you used good judgment and logic in solving a problem.
- By providing examples, convince me that you can adapt to a wide variety of people, situations and environments.
- Describe an experience when you were faced with problems or stresses that tested your coping skills.
- Give me an example of a time in which you had to be relatively quick in coming to a decision.
- Tell me about a time in which you had to use your written communication skills in order to get an important point across.
- Give me an example of an important goal that you had set in the past and tell me about your success in reaching it.
- Give me an example of a time when you were able to successfully communicate with another person even when that individual may not have personally liked you (or vice versa).

## Sample Questions to Ask an Interviewer

## The Position:

- 1. Would you describe the duties of the position for me, please?
- 2. Can you tell me about the primary people with whom I would be dealing? Is this a newly created position? If

- 3. What skills do you see as most important in order to be successful in this position?
- 4. To whom would I be reporting?
- 5. How and when would my performance be evaluated?
- 6. Is regular travel a part of this position?
- 7. Can you tell me about the people who would be reporting to me?

## **Career Paths:**

- 1. Can you tell me about the career path this position offers?
- 2. What is the growth potential in this position? Where does this role fit in the growth strategy of the company?
- 3. About the people who have preceded me in this position and in the department, where are they now, and what are they doing?
- 4. Is it your usual policy to promote from within?
- 5. How are promotions or transfers determined within the company?
- 6. Does advancement to upper management usually require an advanced degree?

## **Education & Training:**

- 1. What additional training might be necessary for this position?
- 2. Is training done in a classroom/group session or is it handled on an individual basis?
- 3. Are there training programs available to me so that I can learn and grow professionally?
- 4. What type of on-the-job training programs do you offer?
- 5. Does the firm support further college education for its employees?

## Assessment Questions for Interviewer:

- 1. What kind of personal attributes and qualifications does your company value?
- 2. What characteristics are important for this position?
- 3. What is the most significant challenge facing your staff now?
- 4. What have been some of the best results produced by people in this position?
- 5. What are your projections for this department/position for the next year? (Specify type of projections, e.g., sales, production, products, profits)
- 6. What do you see ahead for your company in the next five years?
- 7. What are your plans for expanding the (sales, audit, research, etc.) department?
- 8. How do you rate your competition?

## **General Questions for Interviewer**

- 1. Are there any questions about my qualifications (resume) I can answer?
- 2. What are the backgrounds of the leading individuals in my area of interest?
- 3. Are there any other assignments not specifically mentioned in the position description?
- 4. Can you tell me a little about your own experience with the company?

- 5. Is the company planning any new market lines?
- 6. When do you expect to make a hiring decision for this position?
- 7. Could you describe the hiring process?
- 8. Is there anything that we have discussed today that would give you concern regarding my candidacy?

## **Telephone Interviews**

Telephone Interviews have one advantage over the other types of interviews — you can have your preparation materials in front of you as the interview is taking place. Prepare for a phone interview just as you would for a regular interview. Compile a list of your strengths and weaknesses, as well as a list of answers to typical interview questions. (see <u>http://jobsearch.about.com/od/</u> <u>phoneinterviews/phone-Interviews.htm</u> for extra hints).

## **Prior to the Interview**

- Keep your resume in clear view, on the top of your desk, or tape it to the wall near the phone, so it's at your fingertips when you need to answer questions.
- Have a "cheat sheet" of compelling story topics that highlight your accomplishments.
- Have company information summarized including specific critical points describing the employer and the company's products.
- Highlight the key attributes on the job description and your resume where there is alignment.
- Have a short list of questions about the job and the organization.
- Have a pen and paper handy for note taking.
- Consider dressing as you would if you were going to an actual interview rather than in casual clothing or your pajamas. Dressing up will allow you to feel more professional and help you exude confidence.
- Clear the room evict the roommates and the pets. Turn off the stereo and other distractions.
- Close the door. Place a sign "Interview in progress please do not disturb. Thanks."
- If you are caught by surprise at a busy time, you may request another time to speak.

Employers use telephone interviews as a time-effective way of identifying and recruiting candidates for employment. There are three basic types of telephone calls that you get from employers at this stage. One of the keys to success is to be able to identify quickly what type you are going to be participating in.

A. "Information Gathering Interviews" An employer may call in order to assess your interest in the company. This often occurs if you are referred to him or her through a personal contact, referral, or someone you met at a career fair. This kind of call should be treated as seriously as an in-depth interview. It is a good way for you, as the potential employee, to see if you are a good fit with the company and its objectives.

- **B. "Screening Call"** Many companies use telephone calls as a screening mechanism in order to narrow the pool of applicants who will be invited for in- person interviews. These are quick and the person calling you may be someone from Human Resources. Some organizations may use video calls (Skype) rather than the telephone.
- **C. "In-Depth Telephone Interview"** In this case, the telephone is being used as a way to minimize the expenses involved in traveling for the interviewer and/or the interviewee. Depending on the type of organization that you are interviewing with, you may be interviewed by a hiring committee, where you will be broadcast over a speakerphone. Increasingly companies are using video calls (Skype) for this type of long-distance interview.

## **During the Phone Interview**

- Do not smoke, chew gum, eat, or drink.
- Do keep a glass of water handy, in case you need to wet your mouth.
- Smile. This may sound strange but smiling will project a positive image to the listener and will change the tone of your voice.
- Speak slowly and enunciate clearly.
- Use the person's title (Mr. or Ms.) and their last name. Only use a first name if they ask you to.
- Do not interrupt the interviewer.
- Take your time it's perfectly acceptable to take a moment or two to collect your thoughts.
- Give succinct answers.
- Be able to tell a brief example/story of your experiences.

## **Before You Hang Up**

- Thank the interviewer for the opportunity.
- Get the correct spelling of your interviewer's name.
- Get contact information for follow-up questions.
- Ask about the hiring timeline, "When are you looking to have a decision made?"

#### After the Interview

- Take notes about what you were asked and how you answered.
- Follow up with a thank-you note that reiterates your interest in the job. For further hints see <u>http://jobsearch.</u> <u>about.com/od/phoneinterviews/a/phone-interview-</u> <u>thank-you.htm</u>

## **Case Interviews**

Certain employers — especially management consulting firms — use a "case interview" technique to determine how well-suited you are to performing their type of work. Case interviews are used to measure your problem solving ability, your tolerance for ambiguity, and your communication skills along several dimensions.

In a typical case interview, candidates are first introduced to a business dilemma facing a particular company (often drawn from the interviewer's professional experience). Next, depending on the length of the case, you will begin a process in which you and the interviewer engage in an open dialogue about various aspects of the case. Occasionally, the interviewer will help to guide the discussion but will often expect that you ask probing questions to uncover key information about the case facts, identify key business issues, and discuss how you move toward a possible resolution. In this way, employers hope to learn about your analytical skills, specifically, how you identify, structure, and think through problems under pressure. Consequently, your approach to a case is more important than the specific content of your answers. Employers encourage that you think out loud as you attempt to "crack" a case because it allows the interviewer to evaluate your thought process. Therefore, they will also evaluate your interpersonal skills and ability to communicate your recommendations and solutions to the presented business problem.

While there are many types of case interviews, most will involve at least one of the three following components:

- Brainteasers
- Estimation (Market Sizing) Questions
- A Specific Project or Business Case

#### **Brainteasers**

Brainteasers can be little or complex logic puzzles. These can involve using some quick math and give you a chance to demonstrate your conceptual skills to the interviewer. Your answers should be thoughtful and include some creativity in arriving at a solution. Some sample brainteasers are:

- "Why are man-hole covers round?"
- "If a wall clock reads 3:15 pm, what is the angle between the hour and the minute hands?"
- "How would you weigh a plane without scales?"
- "Which would you rather have, a trunk full of nickels or a trunk half full of dimes?"

#### **Estimation Questions**

Estimation Questions may be somewhat longer than brainteasers and require you to be adept in both making assumptions and working with numbers, facts, and the unknown. Usually, with these types of questions, you will likely need pencil and paper. Again, employers are looking for your ability to be creative and will be evaluating your quantitative ability very closely, so it is imperative that the numbers and formulas you create in your solutions be correct.

- "How many car batteries are sold in the US each year?"
- "How much does all the ice in a hockey rink weigh?"
- "Approximately how many pharmacies exist in the U.S.?"

#### **Project Case**

The third type of question found in most case interviews involves analyzing a project or a business case. These can

be written or verbal cases and will take anywhere from 45 minutes or longer to process with the interviewer. Cases can be specifically created for the interview process or can be a past or current situation affecting a business or organization. As such, the best way to begin learning how to approach the different types of business cases comes with practice. Some firms will have sample cases for students to become familiar with the form, and there are many resources available to get yourself acquainted with this popular interview method. The following are just a few examples of project/business cases used in a case interview setting:

<u>Sample case #1:</u> "You are called in by Pizza Hut to help them develop a strategy for entering the home delivery market in which Domino's has the dominant position. As lead consultant on this project, what would you do?"

<u>Sample case #2:</u> "Your client is a mid-sized hotel chain. How would you develop a pricing strategy for the client?"

<u>Sample case #3:</u> "A US company who has just created a new biotech device is thinking about expanding internationally. If its labor costs are competitive with industry standards, what issues might influence its decision?"

Your first challenge is to identify the type of problem the case addresses and decide whether there is an appropriate framework to structure your analysis. Popular frameworks are often derived from business concepts and several can be learned in the process of preparing for your interview. For example, each of the above scenarios addresses three different types of business situations: entering a new market, developing a pricing strategy, and developing a new product. Next, the frameworks that you use to begin your analysis will allow you to push deeper into each issue, starting with the most important first. Questions to ask yourself about a case:

- What additional information do I need to know?
- What are the key issues to be addressed?
- What are the key findings from the analysis?
- What is my hypothesis for the solution?

Overall, as your interview progresses, listen carefully and clarify anything you do not understand before proceeding. Follow the interviewer's lead. Each individual will have a unique interviewing style and take you through the case in different ways depending on his or her priorities.

#### What Employers Look for During a Case Interview

- Enthusiasm for typical consulting issues
- Ability to think out loud and brainstorm
- Listening skills and the pace of candidate's response
- Ability to restate the problem and verify the objective of the business or project
- Conciseness and focus when possible
- Use of sketches, charts, or diagrams to describe your analysis and logic
- Ability to create reasonable hypotheses and put them to the test

- Ability to summarize final recommendations in a clear and concise way, identifying which case facts lead to your solution
- Confidence in your ideas

#### **Common Mistakes to Avoid During a Case Interview**

- Ignoring the cues of the interviewer
- Use of business terms in the wrong context
- Asking open-ended questions throughout the entire interview (or asking a long series of questions without explaining why you need the information)
- Making assumptions that utilize extremely large numbers and percentages and not being able to use them comfortably in your analysis
- Appearing disorganized or having scattered notes on the specific business or project case
- Spending too much time analyzing the smaller aspects of the case and not referring back to the big picture or problem
- Not being able to respond well to criticism or questions about your assumptions or your solutions

#### Additional Case Interview Resources

Many of the medium to large consulting firms that recruit from universities have practice cases somewhere on their website. As consulting firms increase their recruitment of students from a diverse set of majors, employers are looking to expose non-business and management majors to the dynamics of case interviews that will help prepare candidates for the interview process.

In addition to these websites, there are a variety of print, online, and campus resources to help you.

- MIT Sloan Business Club: http://web.mit.edu/sebc/
- Consulting Club at MIT Useful Links: web.mit.edu/mitconsulting
- Vault Career Guides: <u>http://www.vault.com/</u>
- <u>http://www.casequestions.com/</u>
- <u>http://www.acethecase.com/</u>

## **Site Visit Interviews**

After an on-campus interview, lead candidates are usually invited to visit the employer's facility. While on-campus screening interviews are important, on-site visits are where jobs are either won or lost. Work with the employer to schedule the on-site visit at a mutually convenient time. Sometimes employers will try to arrange a site visit for several candidates to take place at the same time, so there may not be much flexibility.

Notification of an on-site visit may be by telephone or mail. Respond promptly if you are sincerely interested in this employer. Decline politely if you are not. Never go on a plant trip for the sake of the trip. If you are attending, document the name and phone number of the person coordinating your trip. Verify who will be handling trip expenses. Most medium and large-size companies (as well as many smaller ones) will pay your expenses, but some will not. This is very important because expenses are handled in various ways:

- the employer may handle all expenses and travel arrangements;
- you handle your expenses and arrangements (the employer may assist with this), and the employer will reimburse you later;
- the employer may offer an on-site interview, but will not pay for your travel expenses.
- you handle your expenses and if you are chosen for the position you are reimbursed.

Bring extra copies of your resume, copies of any paperwork you may have forwarded to the employer; names, addresses, phone numbers and email addresses of your references; an updated college transcript; a copy of your best paper as a writing sample; a notebook; a black and/or blue pen for filling out forms and applications; and names and addresses of past employers.

Once again, your role at the interview is to respond to questions, to ask your own questions and to observe. Be ready to meet people who are not part of your formal agenda. Be courteous to everyone regardless of his or her position; you never know who might be watching you and your actions once you arrive in town. Treat the custodian the same as you would the CEO. Word gets back to people in the most interesting ways.

Soon after the site visit, record your impressions of your performance. Review the business cards of those you met or write the information in your notebook before leaving the facility. You should have the name, title, address, phone number, and email of everyone who was involved in your interview so you can determine which individuals you may want to contact with additional questions or follow-up information. Also, a thank-you letter or email should be written to the person(s) who interviewed you. These should be sent no more than 24 hours after the interview.

The site visit is a two-way street. Just as the employer is evaluating you, you are there to evaluate the employer and to determine if your expectations are met for job content, company culture and values, organizational structure, and lifestyles (both at work and leisure). Take note of how the employees interact with each other and their supervisors and also assess the physical work environment.

Just as any good salesperson would never leave a customer without attempting to close the sale, you should never leave an interview without some sort of closure. If you decide that the job is right for you, do not be afraid to tell the employer that you feel that there is a good fit and you are eager to join the team.

## **Dress Code and Etiquette for Interviews**

"What **am** I going to wear?" We get asked this question nearly every day during the recruiting season and the answer is always "It depends." To help yourself answer this question, use with common sense. Start by asking yourself *"What kind of company will I be interviewing with?"* If it is a *Fortune* 500 company, obviously you should wear a traditional suit. But maybe you will be seeing a funky, upbeat software company and you heard the recruiter showed up for interviews last year in a tie-dye shirt, sandals and beads. Use your own discretion but we suggest you dress the way you would if you were giving an important presentation at the company or attending a business meeting. Feel free to schedule an appointment or come to drop-in hours and speak with a career services professional if you're unsure.

#### Men

Suits — A traditional suit is preferred to a blazer. The color should either be a dark blue or gray in either a solid or invisible plaid with a pressed long-sleeved (even in summer!) white dress shirt. If you buy or borrow one, a

conservative sports coat and dress slacks are best.

Shirts — White shirts are always your first choice. Solid blue is an acceptable alternative. If you don't own either, you should really go buy one. Get plain or button down collar. Choose cotton material. Polyesters and nylon are out.

Grooming — Avoid heavy cologne or aftershave.

Socks — Dark, neat and preferably over the calf. White athletic socks are a big "no no" unless you are interviewing to be a summer camp counselor at a sports camp.

Shoes — Clean and polished leather lace-up black or dark brown shoes are best. Avoid shoes with a run down heel.

Neckties — Conservative silk ties are best. Be sure the tie coordinates with the suit, is solid or has small neat patterns. Be sure the knot is neat and centered on your neck. The bottom of the tie should just reach your belt.

Belts — Wear a black or brown belt, one inch wide, no large buckles.

Hair — Clean, well-groomed and professional looking. Remember, the choice to cut your hair is yours, but the choice to hire you is the interviewer's. Be sure beards and mustaches are neat and trimmed.

Accessories — No flashy cuff links, rings or gold chains. Wedding or college ring is fine. No earrings. Not even one small one. No visible body piercing.

#### Women

Suits — A solid navy, grey or black suit with a solid or light colored blouse is recommended for most positions. Avoid brown, green or pastel suits. Business dresses are acceptable in fields that are less formal and less conservative. Avoid frilly collars and cuffs. Shirts — A light colored blouse is ideal.

Makeup — Natural looking and conservative. Avoid bright colors. Use a neutral or clear nail polish on clean and manicured nails. Avoid heavy perfumes.

Hosiery — Light, natural color, plain style (no patterns).

Shoes — Should be conservative and compliment the color and style of the interview suit. Low to medium heels are ideal. Basic pumps, toes should be closed, no strappy shoes, and avoid multi-colored trim.

Hair — Should be freshly cleaned and neatly styled. Long hair should be worn as conservatively as possible.

Accessories — One conservative, non-dangling earring per ear, one or 2 rings per hand. No dangling or distracting bracelets. Avoid purses of any size — carry a portfolio or briefcase instead. No visible body piercing beyond earrings.

#### **Dining Etiquette for Interviews**

If you are lucky, one round of the interview process will take place over some sort of a meal setting. This could be the most daunting meal of your career. Mental preparation is key! As a rule of thumb, when you face a full battalion of knives, forks, and spoons, start with the flatware the furthest from the plate first. If you are unsure which fork to use for your salad course, choose the one with the slightly smaller prongs.

As soon as you are seated, put your napkin on your lap. Sometimes, at very formal restaurants, the waiter may do this for you. When you use your napkin, gently dab at your lips. It is meant to catch food from falling into your lap and it should gently dust the crumbs from your lips. When you are finished, place your knife and fork so they lie horizontally across your plate, and place your napkin next to your plate. Do not refold it. Do not leave it on the chair when you get up to exit the restaurant.

#### **Dining Tips**

- If you are not sure what to order, follow your host's lead.
- If the recruiter is not first in line to order, ask him/her, "What do you recommend?"
- A chicken breast or vegetable plate is always safe.
- Stick to soft drinks, tea, coffee, and water. Avoid beer, wine, and mixed drinks.
- Cut one bite (meat, fruit, or vegetables) at a time. Keep your fork prongs pointed down, not up.
- With dinner rolls, break off and butter one small piece of bread at a time; avoid making a sandwich.
- Never make slurping or yummy sounds.
- When sharing a sauce with others, spoon some of it on to your plate; don't dip your food into it.
- If you need to leave the table temporarily, place your napkin on your seat.
- Keep your elbows off the table.
- Drink from the glass to your right.
- Eat at the same pace as your host or hostess.
- If you are a non-smoker and your host asks for a table in the smoking section, grin and bear it.

- Be prepared to be conversational.
- Skim the menu quickly; order a medium priced entrée that will be the least messy to eat.
- Relax and keep the conversation focused on business-related or casual topics.
- Say please and thank you to the waiter.
- Don't talk about personal relationships, recent parties, politics, sports, or religion.
- Don't eat the garnish.
- Don't discuss dietary restrictions; downplay your food preferences.
- Don't drink alcohol if you are under age 21; don't have more than one drink if you are 21 or over and the recruiter insists.
- Don't argue over the check or offer to pay the tip; the host who invited you must take care of both.
- Don't eat as if this is your last meal. On the other hand, don't dine on half a lettuce leaf. You'll make the best impression by eating like a human — not like a wolf or a bird.

## **Negotiating Salary and Benefits**

Before you start negotiating your salary, be sure that you have done enough research to know what you can realistically expect. Be aware that you will be offered a competitive salary based on what you are worth — not on what you want or what others are getting for similar jobs. Each person is unique, and "the going rate" is little more than a guideline. Salaries can vary depending on where the job is located.

Employee benefits at most large companies are generally worth another thirty percent or more on top of your salary. The normal benefits include paid vacation (usually two weeks for the first year), health insurance, tuition assistance for courses taken after work, contributions toward your pension, and an opportunity to buy stock in the company with the company making a contribution toward the purchase. If the company grows, and its stock rises accordingly, this last benefit can become a nice nest egg. In addition, some companies may also include life

#### Did you know?

The average negotiated increase in salary of undergraduate was \$8,976 and \$6,011 for master's students. The average negotiated increase in bonus was \$5,306 for undergraduates and \$13, 150 for master's students.

Source: GECD 2012 Graduating Student Survey insurance and / or relocation expenses in their benefit packages.

It is also possible to work for a company and receive no benefits whatever. This is typically the case if you sign on as a consultant, or as a contract worker. Your salary should be larger in this case because it is up to you to pay for health insurance and to provide for your retirement.

Small companies may not have the cash flow to offer large benefits. They may make up for this by giving stock options (the chance to buy the stock later at an earlier and lower price), or a new startup company may pay partly in stock or give an outright gift of stock. Obviously, the value depends on the success of the company.

#### **Did you know?**

38.3% of MIT undergraduate and master's students negotiated their salary and 29.9% negotiated their bonus.

*Source: GECD 2012 Graduating Student Survey* 

Research salaries for the industry and position you seek by visiting:

- <u>http://gecd.mit.edu/resources/data</u> (Graduating Student Survey)
- <u>http://www.glassdoor.com</u>
- <u>http://www.payscale.com</u>
- <u>http://www.salary.com</u>
- <u>http://www.rileyguide.com/salguides.html</u>
- <u>http://jobstar.org/tools/salary</u>
- http://www.bls.gov/oes/home.htm
- <u>http://www.salaryexpert.com/</u>

## **The Art of Negotiating**

Once you have been offered a job, you have the opportunity to discuss with the employer the terms of your employment. Negotiating with your potential employer can make your job one that best meets your own needs as well as those of your employer. To ensure successful negotiations, it is important to understand the basic components. The definition of negotiation as it relates to employment is: a series of communications either oral or in writing that reach a satisfying conclusion for all concerned parties, most often between the new employee and the hiring organization.

Negotiation is a planned series of events that requires strategy, presentation and patience. Preparation is probably the single most important part of successful negotiations. Any good trial attorney will tell you the key to presenting a good case in the courtroom is the hours of preparation that happen beforehand. The same is true for negotiating. A good case will literally present itself. What follows are some suggestions that might help in your preparation.

## Research

Gather as much factual information as you can to back up the case you want to make. For example, if most new employees cannot negotiate salary, you may be jeopardizing the offer by focusing on that aspect of the package. Find out about the costs and benefits associated with the health plan, dental plan, retirement package, leave entitlements, and other benefits.

## **Psychological Preparation**

Chances are that you will not know the person with whom you will be negotiating very well. If you are lucky enough to be acquainted, spend some time reviewing what you know about this person's communication style and decision-making behavior.

In most cases this person will be a stranger. Be assured that he or she will expect some level of negotiation, even if it only relates to your start date. How will you "psyche" yourself up to feel confident enough to ask for what you want? How will you respond to counteroffers? What are your alternatives? What's your bottom line? In short, plan your strategy.

Create a list of all the items you want to negotiate. Be sure you know exactly what you want, not approximately. This does not mean you will get everything you want, but having information clearly outlined in your head will help you determine where you can compromise in return for things that are more important to you. Unless you know what you want, you won't be able to tell somebody else. Clarity improves communication, which is the conduit for effective negotiations.

## **Dollars and Sense**

Always begin by expressing genuine interest in the position and the organization, emphasizing the areas of agreement but allowing "wiggle room" to compromise on other areas. Be prepared to support your points of disagreement, outlining the parts you would like to alter, your suggestions on how this can be done and why it would serve the company's best interests to accommodate your request. Back up your reasons for wanting to change the offer with meaningful work-related skills and positive benefits to the employer. Requesting a salary increase because you are a fast learner, or have a high GPA usually are not justifiable reasons in the eyes of the employer. Meaningful work experience or internships that have demonstrated or tested your professional skills are things that will make an employer stop and take notice.

State all the items to negotiate at the beginning. Cite those areas in which you know you already agree upon. Follow with areas that are open to negotiation.

It is sometimes more comfortable for job seekers to make this initial request in writing and plan to meet later to hash

out the differences. Keep in mind that the employer has chosen you from a pool of qualified applicants, so they need you as much as you need them.

Do not rush the process. Remember this is a series of volleys and lobs, trade-offs and compromises that occur over a period of time. It is a process — not a singular event!

Once you have reached a conclusion with which you are both relatively comfortable, present in writing your interpretation of the agreement so that if there is any question, it will be addressed immediately. Negotiation, by definition, implies that each side will give. Do not perceive it as an ultimatum.

If the employer chooses not to grant any of your requests and realistically, that can happen — you will still have the option of accepting the original offer provided that you have maintained a positive, collaborative and friendly atmosphere during your exchanges. You can always re-enter negotiations after you

## Did you know?

The top five factors that affect whether MIT undergraduate students accepted a job were:

- job content
- creative and challenging work
- fit with culture/environment
- one of their top choices
- location

Salary was 13th on the list. Source: GECD 2012 Graduating Student Survey

have demonstrated your worth to the organization.

## Money Isn't Everything

There are many things you can negotiate besides salary. Benefits can add thousands of dollars to the compensation package. For more information about benefits see <u>http://</u> <u>benefitslink.com/index.shtml</u>. Some negotiation points can include:

- Vacation time
- Paid personal leave and sick days
- Medical/dental/health coverage
- Child care or elder care
- Discounts on the company's products and services
- Gym membership
- Stock options / annual bonuses
- Retirement / disability and life insurance
- Flexibility of hours
- Relocation package
- Professional memberships / affiliations
- Tuition reimbursement for continued education

For more information on negotiating job offers, review the 12 step negotiating process at <u>gecd.mit.edu/jobs/negotiate</u>, and see our online workshops at <u>http://gecd.mit.edu/resources/</u><u>workshops</u>.

# Chapter 6. Academic Pathways

Throughout your MIT career, you will make many choices related to academic pursuits. Global Education and Career Development can assist you with a broad variety of career and global education choices, whether you are a freshman or a graduate student in your final year. More and more of our students are going global while at MIT, and our Global Education team can help you pursue study abroad and work abroad experiences. Many undergraduates will consider graduate or professional school. Graduate students may wish to pursue postdocs or faculty positions within academic careers. The materials and advice in this chapter can help you with some of these decisions.

## Choice of Major — Consider Your Options

To help you weigh options for your choice of major at MIT, ask yourself these questions about each academic department/field you are considering:

## **Appeal of Area of Study**

• Will you enjoy this major for its own intrinsic value?

## **Level of Challenge**

- Do you think you can perform well in this field?
- Is your motivation strong enough to enable you to succeed in this major?
- Are you choosing this major because it is easy? Because it is hard?

## **Department Characteristics**

- How big/small is the department?
- How do you relate to other students in this major?
- Are the faculty accessible? Do you seek them out for informal discussions and other interactions?
- Are there activities in the department that bring students together? Are there activities that bring students and faculty together?

## **Courses Within Your Major**

- Will this major help you acquire prerequisites needed for graduate studies you may be considering?
- How many credits does this major require to complete a degree? Do you wish to focus largely on one department, or do you want flexibility to study in other departments as well?

## **Global Experience**

• How can you incorporate study abroad, research abroad, work abroad or service abroad into your academic plan?

## **UROPs/Internship Programs**

• What opportunities are there for you to get experience in your major that will help prepare you for your potential career?

#### Skills

• What kinds of technical, professional or other skills will you be developing in this major?

## Family, Peers, Outside Influences

• How are outside pressures from family, peers and the job market influencing your decision?

## Here are some additional resources for you to consult regarding choice of major:

- Choosing a College Major (QuintCareers): <u>http://www.quintcareers.com/choosing\_major.html</u>.
- "How to Choose a College Major" by Linda Landis Andrews.
- MIT Alumni Association's Infinite Connection: <u>http://alum.mit.edu</u>. Learn what career paths are possible for the major you are considering.
- Occupational Outlook Handbook: www/bls.gov/ooh.
- O\*NET OnLine: http://www.onetonline.org.
- Sloan Career Cornerstone Center excellent write-ups on career paths in engineering and science, <u>http://www.careercornerstone.org</u>.
- UAAP Choice of Major website: go to this site: <u>http://web.mit.edu/firstyear/2016/choiceofmajor/index.html</u>
   —you may need to change the year to your class year
   (e.g., <u>/2017/choiceofmajor/index.html</u>)

## **Global Education**

Global Education is the one-stop office for information and advice on how to go global! We offer one-on-one advising sessions to help you identify and explore the various options that best fit your academic plans and professional goals. In addition, we can help you with passports, visa information, health and safety planning and cost-saving ideas for living overseas. We offer a series of presentations and workshops, pre-departure and re-entry meetings and are here as a resource to help you prepare for a meaningful and successful time abroad.

In addition to general support related to global educational opportunities, Global Education provides advising for students who are seeking to study abroad and who are interested in applying for a distinguished fellowship. We are here to assist you in identifying the program(s) that best fit your needs, prepare you for the transfer credit process, and work with you on health and safety and logistical details such as housing and insurance coverage abroad. Please find more information about specific study abroad opportunities in the table on this page.

#### **Global Education Opportunities**

#### **Benefits of Going Global**

The world today is a very different place than it was even a few years ago. Business and research are conducted across national boundaries, different time zones, and cultural contexts. This means that as an MIT graduate you will be called upon to work effectively with global collaborators and across transnational engineering and science environments. In this increasingly global context, deciding to take advantage of a global opportunity could be one of the best decisions you make as an undergraduate.

Students at MIT are able to engage with the world in a variety of ways. Students can enroll in a study abroad program taking classes in English or in a foreign language, undertake a research project, participate in an internship or assist underserved communities through public service. Our partner offices include:

- MISTI (internships) <u>http://web.mit.edu/misti</u>
- Public Service Center (fellowships, grants, etc.) <u>http://web.mit.edu/mitpsc</u>
- D-Lab (international development) <u>http://d-lab.mit.edu/</u>
- UROP (IROP international research) <u>http://web.mit.edu/urop/basicinfo/irop.html</u>
- Alumni Association (externships) <u>alum.mit.edu/</u> <u>students/NetworkwithAlumni/</u> <u>ExternshipProgram</u>

In addition to the listings above, a wider collection of global opportunities can be found on the MIT "Go Global" website at http://web.mit.edu/goglobal.

#### **Study Abroad Opportunities**

#### **Planning Study Abroad**

You have probably already heard from other MIT students about the life altering experience of their study abroad program. It is never too early to start thinking about your own study abroad experience and to begin planning for it.

Be strategic in thinking about the study abroad possibilities that might benefit you most. Contemplate these programs from the point of view of your major, as well as your professional and research interests and goals. The more integrated your experience abroad is with your goals and interests, the more you will benefit from that opportunity.

If you have already developed an interest in a particular culture or region of the world by your freshman year, you may wish to start learning (or continue learning if you started in high school) the foreign language most commonly used in that culture or region. You might also want to explore the international locations of exciting developments in the academic/research fields that interest you.

If you start to think about study abroad in your sophomore or junior year, you should still be able to find a program that fits your interests and goals. Even in your senior year you may find some opportunities, especially internships and post-graduate foreign fellowships.

#### **Deadlines**

Please keep in mind that each study abroad program has its own application deadlines. In addition, Global Education has its own internal deadlines (May 1 for summer, full-year or fall semester study and December 1 for spring semester and IAP study) to ensure that students are prepared and that all the relevant MIT offices can be informed of the students approved for study abroad.

#### How to Begin Study Abroad

We invite you to visit the Study Abroad website (<u>http://gecd.mit.edu/go\_abroad</u>) and we look forward to meeting with you to discuss your study abroad ideas and help you find a program that will work best for you. Please make an appointment to meet with us by contacting Global Education, 12-189, studyabroad@mit.edu or at (617) 253-0676.

#### **Study Abroad Programs**

MIT students who plan to study abroad have many exciting options from which to choose. The following table includes the various categories of opportunities with examples.

<b>Program Type</b> MIT-Managed Institute Wide	Year-Long	Semester	IAP	Summer
	CME	MIT-Madrid (spring only)	IAP-Madrid	
Departmental	Political Science	Aero/Astro Architecture Materials Science Political Science		
Direct Enrollment Through MISTI	Examples include: Ecole Polytechnique,	Examples include: Ecole Polytechnique,	France	France
Other Direct Enrollment	Examples include: LSE (General Course) U. of Edinburgh	Examples include: Universities in Australia Barcelona, Spain U. of Edinburgh		LSE
Outside Providers	Locations include: Oxford, UK Australia New Zealand China	Locations include: Oxford, UK South Africa China Italy	Locations include: Mexico Ireland Argentina China	Locations include: France Germany Ireland Spain, China

#### **Distinguished Fellowships**

The GECD Distinguished Fellowships team, in 12-189, is available to provide support and guidance for students preparing applications for the most prestigious awards for foreign study. In many cases, these awards pay for the full costs of graduate programs or international research. They are wonderful opportunities to further one's horizons without burdening oneself. These awards, including but not limited to the Rhodes, Marshall, Mitchell, Gates-Cambridge, and Fulbright, have fostered the careers of the world's best students. Winners have gone on to become a United States President, a leading string theorist (Brian Greene), CEOs, and even MIT professors. Please keep in mind that these types of awards require a great deal of work and have extremely strict deadlines, so please visit our website for the application schedule and timeline. If you are interested in learning more, please visit our website http://gecd.mit. edu/fellowships and contact Kimberly Benard (benard@ mit.edu or 617.253.4378) for an appointment.

Key Qualities Valued in Distinguished Fellowship Competitions:

- Strong Academic Record
- History of Volunteering/Public Service
- Desire for Further Research or Studies

#### **Graduate School Advising**

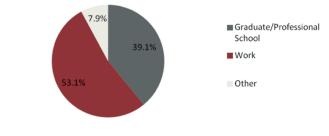
You may be considering earning an advanced degree for several reasons, including the opportunity to gain knowledge in a particular field, an interest in expanding career opportunities and increasing earning potential, or postponing a job search until economic conditions improve. A 2012 survey conducted by Global Education and Career Development found that 39% of graduating seniors planned to pursue advanced degrees right after graduation.

Strong undergraduate academic preparation is essential to succeed in graduate school. Key skills for success as a graduate student include: (1) critical thinking, (2) analytical abilities, (3) research abilities, (4) written communication, (5) verbal communication, (6) time management, (7) self-motivation, and (8) self-discipline. As you contemplate applying to graduate school, carefully consider whether graduate school is essential at this point in your career.

#### **Range of Degrees**

Graduate degrees include:

- M.S.= Master of Science
- M.A.= Master of Arts
- M.B.A.= Master of Business Administration
- Ph.D.= Doctor of Philosophy
- Sc.D.=Doctor of Science
- M.D.= Doctor of Medicine
- D.D.S.= Doctor of Dental Surgery
- D.V.M.= Doctor of Veterinary Medicine



Source: GECD 2012 Graduating Student Survey

- J.D.= Juris Doctor
- LL.M.= Master of Laws
- J.S.D.= Doctor of the Science of Law

#### Top Ten Criteria to Select a Graduate Program

- Match between your career interests/goals and the program
- Quality of the program
- Department and faculty strength and reputation in the profession
- Faculty/student ratio
- Program costs
- Internship or field-work opportunities
- Quality of research facilities, laboratories, and libraries
- Financial Aid resources
- What recent alumni are doing in the field now
- Can you easily make connections with alumni for purposes of discussing how graduate school may enhance your opportunities?

### Resources for Graduate & Professional Schools

- GECD Career Services staff are available to meet with students interested in applying to graduate and professional schools. Visit during drop-in hours or schedule appointments through CareerBridge, <u>https://www.myinterfase.com/mit/student</u>.
- General information for those considering Graduate or Professional Schools: see the GECD website, <u>http://gecd.mit.edu/grad\_school</u>
- Applying to Graduate School Tipsheet, <u>http://gecd.mit.edu/resources/guides</u>
- GRE http://www.ets.org/gre
- Law School Admission Council (LSAC): <u>http://www.lsac.org</u> Includes information on LSATs, Law School admissions criteria, and Credential Assembly
- Graduate and Professional School Essay Writing
   Workshop: <u>http://gecd.mit.edu/resources/workshops</u>
- Official GMAT website: <a href="http://www.mba.com">http://www.mba.com</a> (and <a href="http://www.mba.com">www.gmac.com</a>) Includes information on taking the Graduate Admission Management Test (GMAT), School and Program Requirements, and other information.

The best experts on assistantships and fellowships, whether you are interested in MIT or other graduate schools, are the staff in the Office of the Dean for Graduate Education (3-138). See their website for up-to-date information on the subject, <u>http://web.mit.edu/odge/finances</u>. They also have various compendia listing individual fellowship programs. For information on the aid available in a particular discipline, a good place to turn is the graduate office in the corresponding MIT department.

Most graduate schools will require you to take the Graduate Record Examinations (GRE) before you apply. See <u>http://www.ets.org/gre</u> for more information and to apply to take the GRE.

#### **Personal Statement/Essay**

Regardless of the type of school you are applying to, you will be required to submit a personal statement as part of the application process. Graduate school application essays typically ask applicants to discuss their previous experience, future professional goals, and how they believe that the graduate program can assist them in achieving those objectives. Graduate programs seek individuals with clear commitment to the field, who have corresponding ideas and aspirations. The personal statement provides the applicant with the opportunity to articulate these goals and display strong writing skills. Your essay should be well thought out, concise, compelling, and interesting to the reader. Remember, admissions officers read hundreds of personal essays. It will be important for you to keep in mind the following suggestions:

- 1. Start your essay with something that will grab the reader's attention. Personal anecdotes can often help draw the reader into the essay.
- 2. Make the essay personal. Do not simply repeat the information that can be read on your application. Provide the reader with an inside view on your thoughts, interests and drives.
- 3. Make your motivation and commitment clear to the reader. The admissions officer wants to get a sense from the essay that you are extremely interested and motivated to obtain the graduate degree and will apply the education to your professional work.
- 4. Create a well-written document. Your essay is a sample of your writing abilities. It is important that you convey your thoughts clearly, with carefully chosen vocabulary and correct grammar.

For more information, attend the Essay Writing workshop offered by MIT Career Services, <u>http://gecd.mit.edu</u> or visit the Writing Center in room 12-132.

#### GPA

GPA standards vary among different programs. While these numerical records are an important factor, they are not the only thing considered. Students with a range of GPAs and test scores are accepted. Most of the time, the average GPA of students currently enrolled in the program or the minimum GPA accepted can be found on the admissions webpage. Admissions committees consider all aspects of an application when making selection decisions.

#### **Prehealth Advising**

Prehealth Advising staff work with students interested in applying to medical, dental, and other health-related professional schools.

The following services are available to both current MIT students and alumni/ae:

- Drop-in Hours: 15-minute sessions, set up to answer quick questions.
- Appointments: 30-60 minute sessions, via phone, Skype or in-person. Call our front desk (617-715-5328), or come into our office (12-185) to schedule an appointment.
- Mock Interviews: 45-60 minute sessions to help current applicants prepare for medical/health profession school interviews.
- Credential Service: Service for Prehealth students and alums that stores recommendation letters and sends letters electronically to application letter services (AMCAS, AADSAS, etc.) or directly to schools.

More information on our services and upcoming events can be found at <u>http://gecd.mit.edu/grad\_school/health</u>

#### Considering & Exploring a Health Profession/Career:

Individuals interested in health-related careers should consider the following:

- What is my motivation for entering this career?
- How can I explore this career during my time at MIT?
- What are my core interests and skills and how do they align with this career?

To help answer these questions, we strongly recommend that you set up an appointment with a member of our staff to discuss your interest in these careers. In addition, we encourage the use of the resources on the Prehealth Advising website at <u>http://gecd.mit.edu/grad\_school/health</u>.

#### GPA:

Applicants with a range of GPAs and test scores are accepted, since admissions committees consider all aspects of an application when making selection decisions. That being said, GPA is an important component of an application, as performance in course work completed prior to applying provides evidence that applicants are well prepared for the academic rigor of medical and other health profession schools. For more information on MIT applicant GPAs please visit our website, <u>http://gecd.mit.edu/grad\_school/health</u>.

#### **Course Requirements:**

There is no required major for applying to health related professional schools. There are however, a number of recommended courses one must take prior to applying. Review the recommended course list online with your academic advisor and meet with a Prehealth Advising Staff member if you have any questions.

#### Volunteer / Service Activities:

Admissions officers are interested in applicants who, in addition to having good academic credentials, are humanistic in nature, who care genuinely about others and have shown evidence of this interest through volunteer or community service activities. Your participation in volunteer work and leadership activities can help develop personal qualities such as integrity, breadth of interest, human relations skills, and motivation towards a career in the health professions.

#### Exploration

It is important to gain exposure to the health professions through informational interviews, shadowing, and volunteering in health profession settings to ensure that a medical/ health profession career is a good fit. Prehealth Advising offers panels, speaker events, workshops and the Physician Shadow Program to provide students with opportunities to explore the health professions.

#### **Physician Shadow Program**

This program provides students the opportunity to experience a typical day for a physician and to explore different areas of specialty in medicine. Shadow opportunities are offered at the Massachusetts General Hospital (MGH), the Tufts Medical Center, and Boston's Children's Hospital.

#### **Prehealth Timeline Overview**

#### Freshmen & Sophomore years

(or 3-4 years prior to entry)

- Review recommended course list and complete prerequisite courses
- Explore the field of health care through informational interviews, job shadowing, summer programs and volunteer work
- Gain experience that helps develop skills that are relevant in the field of health care through internships, community service, research, student organizations, etc.
- Prepare for the MCAT, DAT, or other standardized exam required for application

#### **Junior year**

(or 2 years prior to entry)

 Participate in a Prehealth Registration Meeting with Prehealth Advising. This meeting provides an opportunity to discuss your motivation and assess your readiness for the application process. <u>https://gecd.mit.edu/grad\_school/health/prepare/</u> registration

\* The Prehealth Registration process opens in the spring, so applicants may participate as early as their sophomore year. It is advised that individuals participate in a Prehealth Registration Meeting as early as possible.

• If eligible, request the MIT Prehealth Advisory Board Letter.

http://gecd.mit.edu/grad\_school/health/apply/ advisory\_board/

- Take the MCAT, DAT, or other standardized exam required for application.
- Request 3-5 letters of recommendation from faculty and supervisors.
- Write the application essay or personal statement.
- Submit the primary application (AMCAS, ADSAS, etc.)

#### Senior year

(or 1 year prior to entry)

- Complete secondary applications
- Interview

A more detailed Prehealth Timeline can be found at: <u>http://gecd.mit.edu/sites/default/files/phtimeline.pdf</u>.

#### **Academic Careers**

Nearly half of MIT's doctoral graduates will pursue an academic career (junior faculty position or postdoc) upon completion of the doctoral degree. Career Services offers several services for those considering an academic career:

- Self-assessment tools to help you learn more about yourself and ultimately help you identify the right careers for you.
- Individual advice on any aspect of the academic career search.
- Resources to help you prepare for the academic search: <u>http://gecd.mit.edu/career/graduate-student-services/</u> <u>graduate-students-prepare</u>
- Graduate Student Survey information to help you understand where your peers have gone, salaries they've earned, and more. <u>http://gecd.mit.edu/</u> <u>resources/data</u>
- Academic Career Series faculty and alumni presentations on various topics, co-sponsored by GECD, Graduate Student Council, and Postdoctoral Advisory Council (throughout the year).

In addition, there are services available through the MIT Writing Center <u>http://web.mit.edu/writing</u> (including opportunities to practice the job talk) and the Teaching and Learning Laboratory <u>http://web.mit.edu/tll</u>.

For information about Distinguished Fellowships and other scholarship opportunities see <u>http://gecd.mit.edu/goabroad/fellowships</u>.

#### **CURRENT RESEARCH**

#### Active Control of Rotorcraft Vibration

I am currently working with Boeing Helicopters to develop advanced control techniques for control of rotorcraft vibration, so that the vibration typically experienced by helicopters can be significantly reduced. My advisor Prof. Steven Hall and his former doctoral students developed the X-frame actuator for those purposes, and I am working on the design and implementation of the advanced Higher Harmonic Control (HHC) algorithms using the X-frame actuator for an MD-900 helicopter. The advanced HHC includes an intelligent anti-windup scheme, which shows better performance than traditional discrete HHC. The intelligent anti-windup algorithm ensures that the output signals from each controller do not saturate, so that multiple HHC systems can be implemented without causing any difficulties. The active rotor system with the advanced HHC algorithms will be flight-tested in 2003.

#### Active Control of Noise Radiated from Underwater Vehicles

I have worked with Northrop Grumman Corp. and Materials Systems Inc. to develop new technology for the reduction of radiated noise from vibrating underwater vehicles using smart structures technologies. This project has been funded by the Office of Naval Research, with an objective of developing "smart" underwater vehicle systems so that the enemy cannot detect attack in advance. My responsibility in this project is to develop the control architecture and methodology to reduce the radiated noise from vibrating structures. In order to accomplish this, I have designed two different controller architectures. The first one is the assembly of local controllers, which are implemented for each sensor/actuator pair to reduce its vibration level. The second one is a global controller, which makes the structure a weak radiator by coordinating the action of local controllers. In order to implement the global controller successfully, I have developed a new wavenumber domain sensing method and applied it to the feedback controller design for active structural acoustic control. The approach is to minimize the total acoustic power radiated from vibrating structures in the wavenumber domain. The new sensing method greatly simplifies the design of MIMO LQG controllers for active structural acoustic control by reducing the effort to model the acoustic radiation from the structure and allowing the systematic development of state-space models for radiating wavenumber components. Further, I have extended the concept to general complex structures, so that it can be applied for reducing radiated noise from any vibrating structures. The new sensing method is numerically validated on a thick-walled cylindrical shell with 55 piezoelectric panels mounted.

#### **FUTURE RESEARCH GOALS**

My future research goal is to develop "intelligent structural systems", from the micro-scales (MEMS) to macro-scales (aerospace systems and underwater vehicles), which will contain array of sensor/actuator pairs and embedded devices for controls and decision-making algorithms. Those systems should be able to coordinate large numbers of devices and adapt themselves to uncertain environmental changes in an intelligent manner. For this research goal, I will focus on the following three research areas. First, I will carry out research on structure/ fluid/control interaction phenomena for complex systems. The phenomena will be critical design issues in those complex structural systems, both in micro- and macro- scales, so the fundamental understanding of the phenomena is very important to successful implementation of the structural/acoustic control algorithms. Second, I will extend my specialization in smart structures technologies to the development of advanced sensors and actuators for intelligent structural systems. Since the systems will contain arrays of embedded devices, such as micro-sensors and actuators, the development of novel sensors and actuators that can be coordinated and integrated within the systems will be critical in future areas of research. Finally, I will continue my research on advanced control and decision-making algorithms for noise and vibration reduction of complex structural systems. Some of the important requirements of the algorithms include: (1) the ability to handle many sensors and actuators in an efficient manner, (2) robustness to modeling error and uncertain environmental changes, (3) the ability to modify their functions adaptively even in the unexpected change in the plant or environment, and (4) the ability to detect the failure in the plant and maintain the performance by reconfiguring the algorithm architecture. As mentioned earlier, I have developed the novel wavenumber domain feedback controller design method for active structural acoustic control of complex structural systems, which satisfies the first and second requirements. I will continue my research to improve the performance of the method, and therefore to develop "intelligent control design methodology" for complex structural systems, so that those four requirements given above will be successfully satisfied.

#### **Sample Statement of Teaching Philosophy and Interests**

My teaching goal is for each and every student to leave my classroom with a solid understanding of engineering concepts and a sound background to analyze engineering systems. I strongly believe that a thorough understanding of undergraduate/graduate courses is most fundamental to young engineers for their future research. My responsibility as instructor would be to help students acquire a solid foundation in the subject matter, and to encourage them to build confidence in their knowledge of the course material, so that they can apply what they learned in my classroom to engineering problems with confidence. I have a very strong undergraduate and graduate education in mechanics, dynamics and controls. Also, I have extensive research experience in structural dynamics, acoustics, and controls, which would allow me to teach students fundamental concepts of engineering systems thoroughly. My primary interests in undergraduate level teaching lie in the following areas:

#### **UNDERGRADUATE LEVEL**

- **Mechanical Vibration** This course would involve basic introduction to mechanical vibration, including free and forced vibration of single- and multi-degree of freedom systems, fundamentals of frequency and modal analysis, and approximate solution techniques.
- Engineering Mathematics This course would be an undergraduate-level introduction to engineering mathematics, including linear algebra, differential equations, complex analysis, and Laplace and Fourier transforms.
- Feedback Control of Dynamic Systems This course would involve introduction to design of feedback control systems, focusing on properties and advantages of feedback systems, time-domain and frequency-domain performance measures, stability and degree of stability, root locus method, Nyquist criterion, and frequency-domain design.

#### **GRADUATE LEVEL**

- Advanced Structural Dynamics and Acoustics This course would first review single and multiple-degree-of-freedom vibration problems, using matrix formulation and normal mode superposition methods. Then, the course would present various topics in structural dynamics and acoustics, including time and frequency domain solution, random vibration, vibration and noise measurement and analysis techniques, wave motions in structures, structure/fluid interaction problems, and acoustic radiation.
- **Control of Structures** This course would present fundamental control-structural dynamic interaction from a unified viewpoint, applicable to active control of flexible structures, and active structural acoustic control of structural systems.
- **Multivariable Feedback Control Systems** This course would be an introduction to the state-space approach to control system analysis and control synthesis, focusing on design of "robust" controllers for mechanical systems, including optimal control methods and the Kalman filter.
- **Continuous and Discrete Time Signal Processing** This course would provide a theoretical foundation of signal processing techniques necessary for mechanical engineers. This course would focus on the analysis and processing of experimental data, and real-time experimental control methods, including Laplace and Fourier transforms, spectral analysis, filter design, system identification.

These present general topics and I would be happy to teach more specific courses according to the needs of the students and the department.

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GECD thanks our 2013-14 corporate partners. Partner contributions provide support to programs, resources, and events for MIT students and graduates.

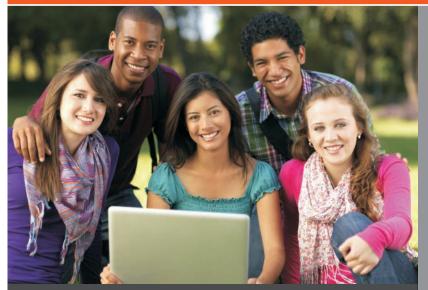


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