Get Experience: Internships, Research, etc.

It’s important to get career related experiences while in college, in fact 89% of employers factor in experience when hiring a new employee and 72% of employers prefer related experience (National Association of Colleges and Employer’s 2011 Job Outlook). Below is information about some of the ways to get experience while pursuing your college degree.

INTERNSHIPS:
Internships are a great way to gain experience in a specific field, learn more about a company, apply knowledge gained in the classroom, learn new skills, and network with professionals. The majority of CSE internships are done in the summer and are often paid full-time positions. For more information about how to receive credit for an internship, contact your department or academic advisor. For information about how to find an internship, see the Internship & Job Search Guide. One way to start finding and applying for internships is through Goldpass: goldpass.umn.edu/ (a database of internships and jobs for U of M students).

CO-OPS (available for some CSE majors):
A co-op provides the opportunity to work full-time (and get paid) while alternating semesters of coursework. The benefit of doing a co-op is that when you graduate you will be leaving with almost a full year of meaningful engineering work experience. Participating in a co-op will likely delay your graduation date, so be sure to make an education plan with your academic advisor. For more information about co-ops contact your department and search for positions through Goldpass: goldpass.umn.edu/ (a database of internships and jobs for U of M students). Mechanical, electrical, and computer engineering students can find more information about co-ops at: http://cse.umn.edu/r/co-ops/.

WORK EXPERIENCE:
Any job can help you develop skills that are valuable for your career, such as teamwork, leadership, and communication skills. Part-time and summer jobs give you the opportunity to take on professional responsibilities, tasks, and projects and can be a stepping stone to help you get an internship or research experience in the future. There are many ways to find jobs, for on-campus opportunities visit: http://www1.umn.edu/ohr/employment/

VOLUNTEERING:
Volunteering is a way to gain experience and lend your skills to make a difference. It may help you get your foot in the door at an organization or help you develop skills that you can demonstrate to future employers. Here are some resources to get started to find volunteering opportunities:

- Goldpass:goldpass.umn.edu/
- Community Service Learning Center: www.servicelearning.umn.edu/
- Hands on Twin Cities: www.handsontwincities.org/
- Volunteer Match: myyahoo.volunteermatch.org/
- Minnesota Council of Non-profits: www.mncn.org/

LEADERSHIP & STUDENT ORGANIZATIONS:
Employers rank leadership experience as the most influential attribute when deciding between two equally qualified candidates (National Association of Colleges and Employer’s 2011 Job Outlook). Getting involved with a student organization and/or taking on a leadership position will help you develop your leadership skills. Some student organizations also offer the opportunity to get hands on experience, such as the Solar Vehicle Project and Engineers Without Borders. Here are some resources to help you find student organizations and leadership opportunities:

- CSE student orgs: cse.umn.edu/beyondclassroom/
- U of M student orgs: http://www.sua.umn.edu/groups/
- Engagement Opportunities: engage.umn.edu (searchable database of involvement activities)
- Leadership Minor and Leadership Opportunities: www.leadup.umn.edu/
- LeaderShape: A six-day leadership camp taking place in January. For more information, email kubit001@umn.edu.

STUDYING/WORKING ABROAD:
Studying or working abroad may help you develop your language abilities, cultural competency, and skills such as adaptability. Being able to articulate what you learned from your experience abroad to employers may help you stand out as an applicant. Visit the Learning Abroad Center to learn more about abroad opportunities: www.umabroad.umn.edu/. Or contact the CSE
Conducting research is an excellent way to deepen your knowledge of a certain subject, gain field experience, learn valuable investigative skills, and network with a professor. You can get involved with research in many different ways, such as through internships, national research institutes, volunteering to help a faculty member, or laboratory jobs on campus: www1.umn.edu/ohr/employment. Described below are some of the ways you can get involved with research.

The Undergraduate Research Opportunities Program (UROP)
A UROP gives you the opportunity to work with a faculty mentor on a creative activity or research project with financial support from the University of Minnesota. UROP students receive stipends of up to $1400 and expenses of up to $300. In order to complete a UROP you need to identify a faculty mentor and create a research proposal. Visit www.urop.umn.edu for more information. You can also contact the CSE UROP Coordinator for help—Joseph Nieszner; nies0024@umn.edu.

Directed Research
You may earn credit by working in a lab or field setting under a faculty member. Before starting your research be sure to find out how the credits fit into your program of study and complete and turn in a directed research contract. For more information about how to do directed research ask your academic advisor or contact your department.

Summer Research Experiences for Undergrads (REU)
The National Science Foundation funds research programs at institutions throughout the nation. Go to their website to learn more about these opportunities: www.nsf.gov/crssprgm/reu/index.jsp

*For more information about CSE Research opportunities visit: http://cse.umn.edu/r/student-research/

*For more information about research opportunities related to your major view the “Major Binders” in the CSE Career Center Resource Center and visit your department’s website.

Steps To Get Started Doing Research:
1.) The first step is to figure out what you are interested in. Think about what classes you’ve enjoyed and what topics you like to discuss and learn about.

2.) Identify faculty that are doing research related to your interests. Look at the opportunity gallery on the UROP’s website: www.urop.umn.edu, go to your department’s webpage to find out what faculty are researching, and consider what faculty members you’ve had classes with are researching.

3.) Contact faculty members to inquire about opportunities to get involved with research. Be sure to learn a little bit about the professor before contacting them. Most departments have biography pages as well as detailed information about each faculty members’ research interests. Visit faculty members during office hours or email them. When you communicate with them express a genuine interest in what they are researching, ask questions, and inquire about ways to get involved (see examples below of communication with faculty members).

Example Email to Faculty Member
Dear. Dr. Kane,

My name is Sue Smart and I am a Sophomore studying Mechanical Engineering. I recently read on the UROP website about the work you are doing to create motor oils from renewable sources. I think the unique, cost-saving, and energy efficient approach you are taking to do this research is really interesting and cutting edge. The research you are doing is so important to me and our society because of the energy problems we are facing. I have a strong interest in being part of the solution! I was wondering if we could set up a meeting to further discuss your research and my interest in getting involved? I look forward to hearing from you!

Sincerely,
Joe Student

Example of Office Hours Visit with Faculty Member
“Hi Dr. Smith! I’m Sam Science and I took your class in Human Health and Disease last fall. In class you mentioned the research you’re doing about Structure-based Design of Therapeutic Drugs against Cancer & Infectious Disease. I was wondering if you could tell me more about your testing process?” (Dr. Smith Responds), “That sounds like something I would really enjoy doing, are there any opportunities for me to get involved with your research?”