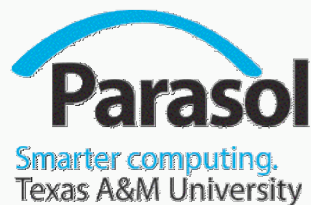


# Graduate School: How to be a strong applicant

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# Graduate School Admissions

- Graduate School admissions committees are looking for students who will be great researchers
  - Primary Indicators:
    - Research accomplishment
      - ◆ Participation in research experiences (e.g., REU)
      - ◆ Publication of research papers or posters at technical meetings
  - Other Indicators:
    - Your Academic Record
    - Standardized Tests
    - Letters of Recommendation
    - Intern/Co-op Experience
    - Leadership Activities
    - And last, but not least, (portable) Fellowships!

# Your Academic Record

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- **Transcript**
  - Your GPA
  - Courses you Selected
    - Be sure you take the basics, even if your degree program does require them, e.g., compilers
    - Take elective courses in your area of interest - will help you decide if you are interested, and letter writer prospects

# Standardized Tests

- **GRE**
  - **General Test**
    - Almost all graduate programs in CS & CE require it, with some notable exceptions
    - Also required for most national fellowships (e.g., NSF)
  - **Subject Test**
    - More mixed as to whether it is required by graduate program, but still required by many
    - Also required for most national fellowships (e.g., NSF)
  - Take the courses you need for them
    - Data structures, algorithms, architecture, OS, compilers
  - Study for them
    - You can take them more than once - most programs will look either at most recent or best score

# Letters of Recommendation

- **Cultivate Letter Writers!**
  - Keep in touch with them once or twice a year
- **First Choice:**
  - Professors or Supervisors who you worked with in research experiences, or research-like experiences
- **Next Choice:**
  - Professors in classes in which you EXCELLED
- **Next Next Choice:**
  - People who knew/supervised you in jobs, faculty supervisors of school groups, etc.

# Internships/Co-Op (non-research)

- Non-research related internships will not strengthen your graduate school application much
- These may help you decide if you want to go to grad school because they can show you what type of work you can do without a graduate degree
- You can ask supervisor for letter if you are desperate for letter writers.
  - will not have much impact UNLESS the experience is research relevant

# Leadership Activities

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- Activities that show you have leadership potential and will take initiative
  - Student organizations
  - Your department
- As with non-research related internships, these will not strengthen your graduate school application much, but they can help to round out your resume and show that you take initiative, which is a characteristic faculty look for in students

# Fellowships

- National Fellowships
  - Having a national, portable fellowship (e.g., NSF) will make you a very attractive applicant!
  - There are many of these fellowships you can apply for before you go to graduate school, e.g., senior year
    - Sometimes you can also apply for them in your first year
- Fellowships awarded by University
  - Many universities have fellowships and scholarships they award to attract students
  - Usually, you do not need to do anything beyond applying for graduate school at that school to apply for them

# Research-Related Activities

- Summer or Academic School Research Experiences
  - This will help you decide if research is for you, will help you write a better essay, and will find you letter writers
  - Academic or Summer experiences at your school
  - Summer experiences at another school
    - Letters from profs not at you school are a big bonus
    - CRA-W/CDC DMP summer research program
      - ◆ This program will be called DREU (Distributed REU) in the future
    - NSF REU sites
- Attend Conferences
  - Grace Hopper, Tapia, and Technical Seminars
- Attend Research Seminars (at your school or nearby)
  - CRA-W/CDC Distinguished Lecture program - apply and bring one to your school

# Resources

- Advice for Undergraduated Considering Grad School
  - <http://polaris.gseis.ucla.edu/pagre/grad-school.html>
- CRA-W publication: The Graduate Student Information Guide
  - Covers: Advantages of Obtaining an Advanced Degree, Choosing the Right Graduate School, The Graduate School Application Process, Financing Graduate Study (Sources of Financial Support)
  - <http://www.cra.org/Activities/craw/projects/mentoring/mentorWrkshp/grad-guide.pdf>
- Choosing A Ph.D. Program In Computer Science
  - <http://www.cs.ubc.ca/~rap/crossroads.html>
- How to Succeed in Graduate School: A Guide for Students and Advisors (Parts I & II)
  - <http://www.acm.org/crossroads/xrds1-2/advice1.html>
  - <http://www.acm.org/crossroads/xrds1-3/advice2.html>
- Lists of fellowships and scholarships
  - <http://www.cs.tamu.edu/academics/scholarships#national>
  - <http://www7.nationalacademies.org/fellowships/othfells.html>