

# Graduate Admissions and More

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# Warning About Believing Me

## ■ These are my own views:

- Based on my experience on admissions,
- and as a principal investigator,
- in recent years,
- at Northeastern.

## ■ Others may differ.

- based on research area,
- reputation of university and group,
- economy and personal preference.

# Why Grad School?

- It's Hard, Low-Paying, Long Hours.
- Research is Frustrating, but
- It's Rewarding, and You Have a Lot of Choices.
- BS, MS, Ph.D. Postdoc, Tenure Track, Managing a Group
- Life's Big Tradoff...
  - The more you work the more control you have.

# Admissions Sorting

- Pre-sort (GPA, GRE, UG School, *etc.*)
- Special Cases (Preselected RA, *etc.*)
- MS Degree and Research
- Preference for Ph.D.?
- Top Schools with Reasonable Grades
- Statement of Purpose
- Recommendation Letters

# Admission Selection

- Pre-Selected RA's (By PI)
- Top Few for TA's (By Group)
- TA to RA (By PI)
- Other RA's (Any Time, By PI)
- Unfunded Good Candidates
- Rejects (Including many qualified candidates)

# RA Selection (by PI)

## ■ Basis for Decision

- Interview/Visit
- Recommendation from Colleague
- Other Recommendation
- Statement of Purpose

## ■ Criteria for Decision

- Proven Expertise in Field
- Enthusiasm/Initiative
- True Match (Do your homework!)
- Communication and People Skills

# Funding

## ■ Teaching Assistant

- \$9k/semester and Tuition Waiver at NU
- 20+ hr/wk (& 20+ Acad. 20+ Research)

## ■ Research Assistant

- \$27k/year and Tuition Waiver at NU
- 20+ hr/wk (& 20+ Acad.)

## ■ Part-Time, Company Paid

- Thesis vs. Project vs. All Academic

## ■ Self-Funded

- Tuition \$9k/Semester (\$36k for MS)

# Scholarships

- NSF: GRF, Mid Nov. (Early GS)
- DoD; NDSEG, Mid Dec. (Early GS)
- NIH; Kirschstein F32, De,Ap,Au (Ph.D.)
- Foundations; e.g. Hertz, Early Nov.
- Professional Societies (e.g. OSA, SPIE)
- Other Government (e.g. NASA, ONR)
- University-Based Programs
  - NSF Centers, IGERT, GAANN, T32



# How to Succeed

## ■ Join a Research Group

– Even if you are a TA!

## ■ Own Your Project.

## ■ Think 3p

– Publications, Proposals, Patents.

## ■ Apply for Funding.

## ■ Go to Conferences.

## ■ Write!

# Undergraduate Research

- Establish Strong Connections Early.
  - Work-Study, Honors, Directed Study, REU, Capstone, Volunteer?
- Respect the Value of Our Time.
- Be Honest about your Availability.
- Keep your Promises.
- Be Willing to Do Some of the Boring Stuff
- (But Find the Interesting Parts).
- Take Initiative to Find Your Own Work.
- Learn the Leaders in Your Field.

# Requesting a Letter

- Request letters from Profs. who really know you (Work on having some!).
- Allow time, but clarify deadlines.
- Ask for multiple letters if needed.
- Make it Easy for them to write.
  - Provide summary data.
  - Provide logistics or logistical data.
  - Most of all, give them reason to say good things.

# Talk to Us!

- Use the network of faculty and students you have here to become a member of your research community.
- Even if you don't know exactly what to do, do something.
- When you work in research you are surrounded by people who can help you.