REMINDER!!
Please complete the CSGrad4US Entry survey administered by our external evaluator (Center for Evaluation & Research for STEM Equity @ UW)

Survey closes on Sunday, October 25

email from
From Name: Erin Carll
From Email: noreply@qemailserver.com
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Subject: CSGrad4US Evaluation Survey

The Application and Decision Process

Previous sessions

- Preparing a strong PhD application (general guidelines)
- Identify what you are looking for in a PhD program
- Identify potentially suitable programs
- Understand the admissions process

Session 4

- Choices to make: research area, adviser, program
- Identifying a program and potential research advisers
- Revisit
  - Contacting a possible adviser
  - Identifying letter writers
- The importance of campus visits

Breakout by Topics at the End
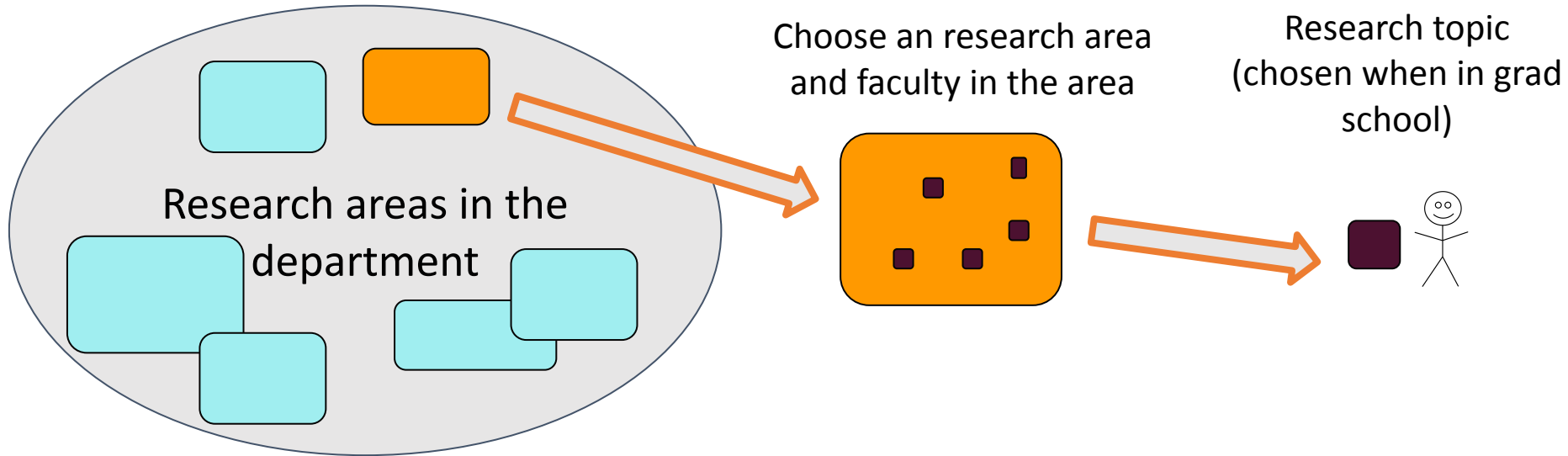
We need your input through chat:

- What part of the PhD application do you feel you need the most help with (and where talking to peers and us can help)
- What part of the admission process do you have questions on?
- What part of being a grad student is most unclear/most confusing?

Most important decisions a PhD student makes start at application time

Research areas in the department

Choose an research area and faculty in the area

Research topic (chosen when in grad school)

Choose: a research (sub)area, the program, an adviser, a research topic

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Common research areas

Security / Privacy / Information Assurance

Social Computing / Social Informatics

Human-Computer Interaction

Artificial Intelligence / Machine Learning

Robotics / Vision

Networking

Theory and Algorithms

Software Engineering

Quantum Computing

Graphics / Visualization

Operating Systems

High-Performance Computing

Computing Education

Scientific / Numerical Computing

Programming Languages / Compilers

Information Systems

Databases / Information Retrieval

Information Science

Informatics: Bioinformatics / Other Science

Hardware / Architecture

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Choosing a Research Area
(at application time and/or in year 1)

- What research topics excite you and why?
- How much knowledge and experience do you already have in that area?
- How strong are the departments and research groups in that area?
- How many faculty members work in that area?
- Is interest in that research area existing and growing?

Choosing a Research TOPIC
(typically within the first 2 years)

- Want to be passionate about it
- Want advisor to be committed to it
- Want topic to still be of community interest (and funded) in 3-4 years
- Want a topic where you can make significant contributions over 3-4 years
  - avoid incremental or exceptionally difficult problems
  - potential for the future is important for an academic career
- Want a topic for which the needed resources are available

Choosing a Research Topic & Application/Admission Process

- Don't state your exact research topic at the time of your application
  - focus on the research area and possible questions
  - okay to list topics of interest
- An adviser may make an RA offer to a student to work on a specific funded research topic.
  - can be a difficult decision for a student
- Changing adviser?
  - unclear what happens to the research topic
  - will be discussed more in session 5

Finding PhD Programs to Fit Your Research Interests

- Session 3 concentrated on programs in CS departments
- CISE covers both CS and I-Schools
  - What's the difference?
  - How does your choice impact your application?

CS versus I-school: Expected background

Applying to a CS program

- The majority of the students will have a BS/BE in CS/CE
- If background is equivalent to a minor in CS, additional coursework is often recommended (UG major may be relevant to research of adviser)
- An admitted student can generally switch advisers

CS versus I-school: Expected background

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Applying to an I-school program

- I-schools contain broad subareas, with each subarea generally having its own background expectations/skills of admitted PhD students
- Identifying the faculty/subareas of research interests is crucial
  - Explicitly asked to identify multiple faculty / interests in application
- Reach out to the faculty about background expectations for admissions and working with them
  - Focus your application on those characteristics

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Example: CISE Programs @ UW

- [Paul G Allen School](#) of Computer Science & Engineering
  - Offers PhD in Computer Science
  - Admission is highly competitive; about 5% acceptance rate with 3000 applications
- [Information School](#)
  - PhD degree in Information Science; requirements are flexible and CISE content depends on [research area](#)
  - About 17% acceptance rate with 150 applications
- [Department of Human Centered Design and Engineering](#)
  - Contains CISE research areas and CISE faculty (e.g., Kate Starbird)
  - A Department in the College of Engineering
- [Electrical and Computer Engineering](#)
  - Contains CISE research areas and CISE faculty

Example: CISE Programs @UC Irvine

- [Bren School of Information and Computer Science](#)
  - 3 departments: Computer Science, Informatics, and Statistics
  - PhD programs in CS and Informatics are CISE; Stat is not CISE
- PhD Admission to the Bren School
  - CS and Informatics have faculty with joint appointments
  - PhD admission is separate (each department has 2 PhD programs).
  - Compared to CS, [Informatics](#) has very [different course requirements](#) and a different qualifier system
- [EECS Department](#) in School of Engineering
  - The CS part of EECS offers a CISE PhD program; other parts of EECS may not (circuits and systems, EE systems)
  - "*Professor of Electrical Engineering and Computer Science*" refers to a person in EECS, not CS

Does the PhD program structure matter?

Need/want more background and more breadth?

- Choose a program with more required courses

Want to explore different research areas?

- Choose a program that gives flexibility on required breadth areas

Want to focus on research right away?

- Choose a program with fewer required courses

Already have an MS?

- Can credits be transferred?

Want to gain teaching experience?

- Are graduate students allowed to teach?

No program has a really easy to explore expected background, PhD milestone and requirement description.

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Choosing a Program Involves Identifying Potential Research Advisors

Very common:

Applicants are accepted if a faculty commits to advise.

What should I do?

- Explore and identify programs <u>and</u> faculty in your areas of interest

Choosing a Potential Research Advisor

- Renowned vs. beginning researchers
- Do your homework! Check out the following for a potential advisor:
  - How many students have graduated and when did they graduate?
  - How many papers (and where) did students publish with the advisor?
  - Where are those students now (academia, industry)?
- Determine if PhD students do industry internships that lead to publications
- Talk to students working with potential advisor
- Read faculty members' papers and watch research talks online
- Talk to faculty on Zoom

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Choosing a Potential Research Advisor (2)

- What is the advisors collaboration style like?
    - How responsive are they to email or stopping by their office?
- What is the frequency and duration of group and 1:1 meetings?
- Do students work on individual projects or in groups? Are there post-docs?
- Do they have funding for students as RAs and conference travel?
- Are they taking on new students? Taking a leave?
- How do they decide to accept new students?
- Do they co-advise students with other faculty?
- More viewpoints in a PhD Adviser Guide from CS@Columbia

Choosing a Research Advisor / Group

Research groups can have different organizations, interactions, and collaborations among the students and post-docs.

Common questions include

- How do new students learn about research?

- How do individual students find their individual thesis topics?

- How do group members collaborate?

- Do group members do peer-mentoring, especially for junior members?

- How is credit assigned on collaborative papers?

Contacting Potential Advisors

Before reaching out to faculty: Do your homework!

- Look out for specific instructions on their webpage about what to do **before** contacting them.

- Are you familiar with their recent research activities?

- Have you reviewed samples of their papers or presentations?

- What work interests you the most?

- **Not:** Dear X, I am very interested in your research area …

Contacting Potential Advisors (2)

Two options when to contact
1. Before you apply
   - You get a sense of interest and whether it is a good match.
   - You may or may not apply
2. After you have applied
   - You should have mentioned the name in your application.
   - They most likely have read the application before talking to you

For either case, send an email
- Include your CV and (briefly) introduce yourself
- State that you have a fellowship (include a 1-pager about CSGrad4US)
- If you graduated 5+ years ago, consider highlighting relevant working experience
- Talk to your coach on what to highlight in the email

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Contacting Potential Advisors (3)

- What if I don't get a reply?
  - Many reasons: Mail got lost, not taking on new students, not interested, too many requests, not their working style
  - Can send a reminder, but no more
- What if their webpage states "*Do not contact*" or "*Put my name into your application*"?
  - Follow the guidance
- What if their webpage seems quite outdated?
  - It happens
  - Publications and some activities can be found in other ways (e.g., Google scholar)

Contacting Potential Advisors (4)

After your email …

- If you receive a positive response:

  - Request a meeting (call or Zoom)

  - Prepare to talk about <u>their</u> research and <u>your</u> experience/interests

If your letter writers (or coach or area adviser) know faculty of interest, ask whether they would make contact and advocate for you

Questions?
Clarifications?

Review of CSGrad4US Mentee Timeline

- Undergrad degree in CS or related area
- Industrial experiences
- Interest in a PhD

❑ Ask letter writers
❑ Give them resume, personal statement & transcripts
❑ Finalize application materials and get feedback
❑ Submit applications

Before being selected as a Fellow → **Early Fall 2024** → **Late Fall of 2024** → **Spring 2025**
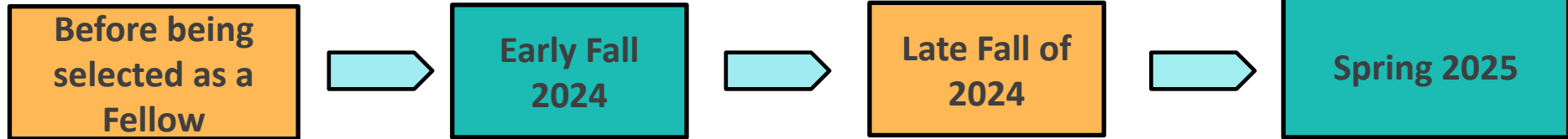
❑ Update your resume
❑ Draft personal statement
❑ Identify letter writers
❑ Select schools to apply to and identify possible advisers
❑ If needed, study for and take GREs

- **Hear from schools**
- **Visit schools**
- Make a decision!

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More on Letter Writers

- Some letter writers will ask you which schools you plan to apply to before they agree to write a letter
- Academics know how to submit recommendation letters
  - May be new or unfamiliar for a colleague or boss
  - Submitting 2 or 8 letters is almost the same effort for a letter writer
- Letter writers should know you/remember you. Help them remember!
- Many faculty keep records
  - Digital records (e.g., emails, Gradescope submissions)
- Top performance in an advanced course is often meaningful

How to Ask for a Recommendation (from Session 2)

- **Ask at least a month in advance**
- **Ask if they can write a strong, positive letter and give them a way to say "no"**
  - *"I'm applying to graduate school. Would you feel comfortable writing a positive letter for me? If so, I'd be grateful. If you are not able to do this for any reason, I'll certainly understand."*
- **Provide "fodder" for their letter**
  - Application (resume, statement of purpose, transcript)
  - Reminder of significant/shared events that you participated in and excelled at
  - We will provide a [letter describing the Fellowship](#) - on Canvas
  - Offer to have a conversation to update them on your career and goals

How to Ask for a Recommendation (from Session 2)

- ***Provide industry writers with guidance on what to include***
  - Concrete experiences and projects
  - Personal characteristics
    - independence, creativity, motivation,
    - follow-through, communication, leadership, teamwork, etc.
  - Strengths that will be valued in academia
  - Feel free to share selected slides from the Mentoring Sessions

Deciding Between Admissions Offers?

You should go on campus visits before making a decision…..

Campus Visits
(Winter/early Spring semester)

Go on Campus Visits!

- Many schools invite applicants for a campus visit (most after admission, some before admission decisions)

- Make use of it (often free) and meet people and see the department!

- If you get too many invitations, prioritize based on your factors. Ask your coach for guidance.

- If you can't make a school's scheduled "visit day", ask if you can visit some other time.

Campus Visit Checklist

☑ Book your accommodations through the university (if possible)

☑ Set up meetings with faculty and grad student staff

☑ Ask to meet with Ph.D. students

☑ If you have special needs, meet with the appropriate campus office

☑ Inform yourself about the department before the visit

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Finally, **Document** Your Efforts

- Each program you investigated or plan to investigate
  - Summarize the important information
    - pros and cons, size, …
- For each program, which faculty look like potential advisors
  - Summarize the important information
    - pros and cons, research areas, productivity
- For each potential advisor
  - Relevant info about their research areas, productivity, funding, etc.
- Status of your application
  - Accepted/Not accepted/Didn't apply; visit plans
- Recommend a spreadsheet that you share with your coach

Review all application-related material we covered

You should have questions!
Talk to your coach, come to office hours.
Keep working on your application material

Breakout by Topics

We will have 4 breakout rooms

- What part of the PhD application do you feel you need the most help with (and where talking to peers and us can help)
- What part of the admission process do you have questions on?
- What part of being a grad student is most unclear/most confusing?
- Logistics and other questions questions

Coming up next …

Panel 2: Q&A with CSGrad4US Fellows from earlier cohorts
Tuesday, October 29, 2024, 7pm ET

Panel 3: What I Wish I had Known Before Attending Grad School
Thursday, November 14, 2024, 7pm ET

Please note the change in dates!