FINDING THE RIGHT JOB

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On the job market or planning to be on the job market

- What career path options are available?
- What do employers value? What do you value?
- What goes into a job application?
- What should you expect during an interview?
- What are you supposed to do after the interview?
- If you are lucky enough to have multiple offers, how do you choose between them?
- What is “negotiation” and what can it do for you?
- What can you do to start preparing?
What are you looking for?

• What kind(s) of position are you looking for?
  • Research University? Liberal arts college? Post-Doc? Teaching position at a research university?

• What type of environment do you want to work in?
  • Small or big department? Join an established research group or start one?

• Where are you willing to live?
## Types of Colleges/Universities

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<th>Degree Program</th>
<th>Emphasis</th>
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<td>Undergraduate Oriented</td>
<td>B.S., B.A.</td>
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Example of Different Expectations

- **Research Institutions**
  - 60% - 80% Research
  - 10% - 35% Teaching
  - 5% - 10% Service

- **M.S./B.S. College or Teaching focused at R1:**
  - 50% - 80% Teaching
  - 10% - 30% Professional Development
  - 10% - 20% Service
Different Academic Positions within an institution and Expectations

• Professorial Ranks
  • Assistant
  • Associate
  • Full
  • Distinguished/Chaired/Endowed Professor

• Instructor – Teaching and Service

• Lecturer – Teaching

• Postdoctoral Positions - Research
Research University: Research Expectations

• **Publications** – journals, conferences (focus on top peer-reviewed venues)

• **Funding** to support research groups and summer salary

• **Graduate student training** (and their professional success)

• **Reputation and impact**
  • Higher in rank: more visibility and international reputation – invited talks, conference organization, journal/editorial boards, professional organization roles.

• **Maybe:**
  • MS/Undergraduate research mentoring
  • Patents, software artifacts, etc
Research University: Teaching

- Teaching Load: typically 1:1 to 1:2
- Mix of undergraduate and graduate courses
- Courses: intro undergraduate up through core graduate course, seminar in research area
- Teaching assistants for grading, office hours, and overall help
Teaching Position
What types are out there?

• Teaching at a small college
  • Professor (assistant, associate, full) with tenure
  • Lecturer

• Teaching track at Research University
  • Many different types/titles
  • Teaching Professor
    • Professor of the Practice, Clinical Professor, Lecturer with SOE (CA)
    • Few with tenure, most on contracts
  • Lecturer, Senior Lecturer
Teaching Position

Expectations

• Teach 2-4 classes per semester
• Innovation in educational practices
• Have busy office hours
• Heavy advising
• Teach out of your specific area
• Involve undergraduates in research projects
• Serve on campus committees (department, college, university)
Teaching Position
Research

• Fewer institutional resources
• No graduate RAs
• Get undergraduates involved
  • Distributed Research Experience for Undergraduates
  • Collaborative Research Experiences for undergraduates
  • REU through NSF
  • Local programs at undergraduate institution
Teaching Position

Rewards

• Close relationship with undergraduates
• Be a member of the university culture
• Chance for leadership and influence
• Matches beliefs/lifestyle
  • Teaching is a gift and you want to share it with others
  • Possibly less travel
  • Flexible schedule for families
Teaching Position Challenges

• Perception that less prestigious than research focused/university
• Salary: possibly lower?
• Intense focus on students
• Staying engaged in research
• Infrastructure (e.g., computer services, grant administration)
• Small department
Post-Docs

• Training opportunity, an opportunity to strengthen your research
• Transitional period into another career path.
• Funded by a Fellowship you apply for OR university/department OR professor’s research grant
• Best case scenario: 2 years, good mentor, high-ranked school that will help you transition to a long-term job of your dreams
Some Post-doc Motivations

• Timing: graduate “off season”, two-body issues, difficult job year
• Improve job opportunities: strengthen research, work in a highly regarded institution
• Learn new area/field
• Work with a specific expert: additional mentoring
• Experience different type of university
Good Post-Doc Position Offers:

• Mentoring and guidance that directly supports professional development

• Significant opportunities to explore independent research topics

• Enhancing the breadth of your research
Post-Docs Challenges

• Low pay (compared to faculty, industry)
• Role in the University
  • Not a student, but not faculty
  • Depending on institution, can feel isolated
• May not have independence
  • Working on PI’s grant
• If you have family, can be difficult to move from a temp position
Application Process
Where to Apply

• Identify “stretch”, “eye-level”, and “safety” departments
• Check ads: CRA, CACM, IEEE Computer, departmental websites
• Certain research areas can match the hiring goals for more than one department (e.g., CS, ECE)
• Keep an open mind! You might be surprised what you end up liking the best
Your Application

- Cover Letter
- Curriculum Vitae (CV)
- Research Statement (2-3 pages)
- Teaching Statement (1-2 pages)
  - What is your teaching philosophy?
  - What are some of the methods of teaching you use? And how do they facilitate student learning?
  - How do you create an engaging or enriching environment?
  - What activities do you use to promote student motivation and learning?
- Letters of recommendation (3-5 people)
Identifying Letter Writers

- Letters are very important
- With your advisor, choose people who are
  - Familiar with your research
  - Respected in the academic community
  - Expected to write a meaningful and positive letter
- Consider (in addition to your advisor)
  - Members of your research community
  - Internship advisors
  - Members of your dissertation committee
  - Other professors at your institution
- Give letter writers a copy of your application material
The Selection Process

• Expect to use an application website
• Some departments ask for letters for all applicants, others only for the selected ones.
• Some departments will let you know that there is a “no match,” but often you will not hear anything
• Few applicants will be invited for an interview
  • Telephone/video interviews are becoming more common
Congrats!
You’ve got an interview!
Typical Academic Interview

- ~2 days
- The interview talk (preferably early, not at the end)
- 30 minute one-on-ones
- Meet with department head/chair and Dean
- Meet with a small group of students
One-on-One

• Do your homework – understand the organization and the interviewers!
  • Know the research areas and accomplishments of the people you will meet; prepare questions for them.

• A two-way evaluation
  • Show interviewers that you’d be the kind of person they’d want down the hall
  • Don’t let them do all the talking. THEY NEED TO REMEMBER YOU.
Preparing your Job Talk

• Provide enough background so people outside your area of research can follow
• Clearly state the problem and identify your specific contributions
• Show you understand any limitations of your approach and/or your results
• Thank your collaborators
• Include future research ideas and interests
Tips

• Get input from your advisor
• Give practice talks to a wider audience at your institution
• Consider any feedback you get
• Get the audience to ask questions, even weird ones, and to play difficult personalities
• Video your talk and (gulp!) watch it
• Practice, Practice, Practice
• Have a backup copy of your talk
The Big Day(s)

- Don’t set up a crazy travel schedule
- Get plenty of sleep, eat healthy, and wear comfortable clothes
- Try to imagine yourself in the environment
- Enjoy and have fun!
Tips

• Be enthusiastic! Show passion about something
• Interpersonal skills are important
• Always tell the truth
• Remember that you are representing your advisor, your department, your university
• Consider when or where to mention any two-body challenges
Questions you will be asked

• What is your vision for the field?
• What was your novel insight and/or long-lasting scientific contribution of your thesis work?
• What do you want to work on next and why?
• Why are you interested in this institution?
• What courses would you like to teach and why?
• What courses are you willing to teach?
• What is your philosophy about teaching students?
• Do you have questions for me?
Questions You Should Ask

• What’s the best thing about the department?
• How are departmental decisions made?
• Are faculty encouraged to collaborate with each other?
• What type of jobs do graduates take?
• How is interdisciplinary research viewed?
• How is collaborative research viewed?
• What is the teaching load? What opportunities exist for faculty to “buy out” of courses?
• How are teaching assignments made?
• How much control would I have over course content?
• What flexibility do faculty have in creating new courses?
• How will I be evaluated? What is the tenure process?
• What resources are available for improving teaching skills?
• How is teaching evaluated?
• Do junior faculty have a mentor? How is it selected?
After the Interview

- Evaluate how it went – revise your materials if necessary
- Talk to your advisor
- Follow up with anything you said you would do
- File for travel reimbursements promptly
  - Read the instructions carefully and keep copies of receipts
  - Send notes thanking people you particularly enjoyed talking to
  - Okay to contact the chair/lead if you have another offer
Offer!
Negotiate the Offer
Negotiating the Offer

• **Starting date and time till tenure**
  - A January start *may* buy you extra time on the tenure clock
  - Tenure clock issues (clock credit, clock stoppage)
  - Pre-tenure sabbatical?

• **Teaching**
  - Teaching load reduction
  - 1st year teaching assignment

• **Money**
  - Salary
  - Start-up package: travel funds, summer salary, equipment, lab and student space
  - Subsidized housing, moving expenses
  - Campus parking, child care facilities/cost

• **Other**
  - Committee reduction
  - Help with obtaining an H1-B visa (if you’re non-US)
Negotiating Rules

• If you never hear “no”, you're not asking for enough

• But know when not to apply this rule
Job Search in ~2 years?
What to do now?
Job Search in ~2 years? What to do now?

- Publish great work!!
- Keep a list of potential future research ideas
- Figure out if you want a research focused or teaching focused position
- Cultivate your professional network: conferences, seminars, mentors … meet people
- Communications skills matter: writing, speaking!
Job Search –
Closer to Getting Out
Job Search – Closer to Getting Out

• Prepare CV and research/teaching statements
• Get these materials reviewed
• Talk to advisor/other faculty where to apply
• Apply to several places
• Prepare/Practice interview talk
• Be assertive!
GOOD LUCK!
Resources

- J. Wing’s “Tips on the Interview Process”

- CRA’s Taulbee Survey
  http://cra.org/resources/taulbee-survey/

- CRA-W Career Mentoring Workshops:
  http://www.cra-w.org/ArticleDetails/tabid/77/ArticleID/50/Career-Mentoring-Workshop-CMW.aspx

- On Academic Life:
  http://dynamicecology.wordpress.com/2014/02/04/you-do-not-need-to-work-80-hours-a-week-to-succeed-in-academia/
Resources (cont’d)

• On Post-Docs:
  http://cra.org/resources/bp-view/best_practices_memo_computer_science_postdocs_best_practices/

• Tips on doing an academic job search:
  http://matt.might.net/articles/advice-for-academic-job-hunt/
  http://people.mills.edu/spertus/job-search/job.html
  https://homes.cs.washington.edu/~mernst/advice/academic-job.html

• Job Ads:
  http://cra.org/ads/
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