Job Hunting in Industry and Academia

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`www.cs.unh.edu/~ruml/papers/job-hunting.pdf`

My Background

1. PhD in heuristic search at Harvard, −2002

   - interviews: 0 academic, 2 industry, 1 postdoc

2. Researcher at Palo Alto Research Center (PARC), 2002–2007

   - group manager, 2005–2007
   - participated in many hiring cases, led one

3. Asst prof at University of New Hampshire (UNH), 2007–2012

   - interviews: 2 universities, 1 college

4. Assoc prof at UNH, 2012–

   - on search committees for TT and non-TT faculty

Basic Advice

- Psychologically hard, but you learn about yourself

  - There are many applicants. Many try once.

- Lots of work, usually at a bad time

  - Delay thesis polish?

- It matters, but there isn't one solution
- Be friendly — it's a small world

  - other people often willing to help

- Maybe 50% is up to you, much is unknowable

  - luck $\propto$ preparation

- Do the next job up

What They're Thinking

Everyone

- Is this someone I want to spend 5–25 years with?
- Complementary with existing capabilities?

  ◆ Someone there likes you

- Will you accept?

  ◆ Offer is high stakes for them
  ◆ CRA shows many positions unfilled
  ◆ Provide your reasons

Schools

Research schools

- Can you bring in grant money and students?
- Are you connected?

Teaching schools

- Is this person ready and committed to teach our students?

  - culture can be very different

Other

Industrial Lab

- Can you present to (and convince) a client?
- Are you good (by my definition)?
- Will you do applied work without prodding?

  ◆ (careful with claims on 'real-world problems')

- Can I think of multiple current or upcoming projects you could help with?
- Will you let us go after new work?

Postdoc

- Will you bring new ideas?
- Will you work without supervision?
- Can you manage an on-going or upcoming project?

Process

Applying

- network early

  (many postdocs arranged by fall?)
- avoid HR if possible
- deploy your advisor (they may live in fantasy world)
- CRA list
- where have people with your background gone?
- don't apply where you wouldn't go

Application Materials

- cover letter not insignificant
- sell your field
- statement should be proto grant proposal
- CV should be complete but not ridiculous

  - track as you go

- letters from outside your school and country

  - 4 letters don't hurt
  - if you're not sure, ask if they have time and can write a strong letter
  - it looks bad if they write a generic letter - help them!

- for me, packaging shows attention to detail

  - scan your signature, use LaTeX
  - buy acrobat if necessary

- summarize teaching evaluations, even for industry

Job Talk

- more important than learning their names

- sleep = prep for questions

- industry may ask more questions

- choose work carefully: show depth, indicate breadth

- don't snow

- teach: emphasize motivation, intuition, significance

- long talks are different: signpost!

- cite others, use their pictures (w/ attribution)

- remote presenter, but don't go too fast

- name, title, $\#/\#$ in footer. use graphics, but no effects

Interview

- what is your goal?

  - in industry: NOT more of the same
  - think big

- what do you like about the job opportunity?
- have explanation for

  - any missing years
  - why not academia/other school

- never negative
- have questions to ask

  - where does money come from? how does acquisition work?
  - travel? books? interns/students?
  - their research, collaborations

- dress like colleague (eg, shirt, carry sportcoat, no tie)

Negotiation

- you might not have much leverage, but asking shows you have a plan
- ask your friends what's appropriate
- be clear about your needs, tie them to goals

  ◆ date?, relocation reimbursement?, hardware?

- be nice: your contact is probably not the decider
- make sure your thesis is done
- take a break

Conclusion

Resources

- CRA list, newsletter, Taulbee survey
- ACM?
- Rick Reis, *Tomorrow's Professor*
- Goldsmith et al, *Chicago Guide to Your Academic Career*
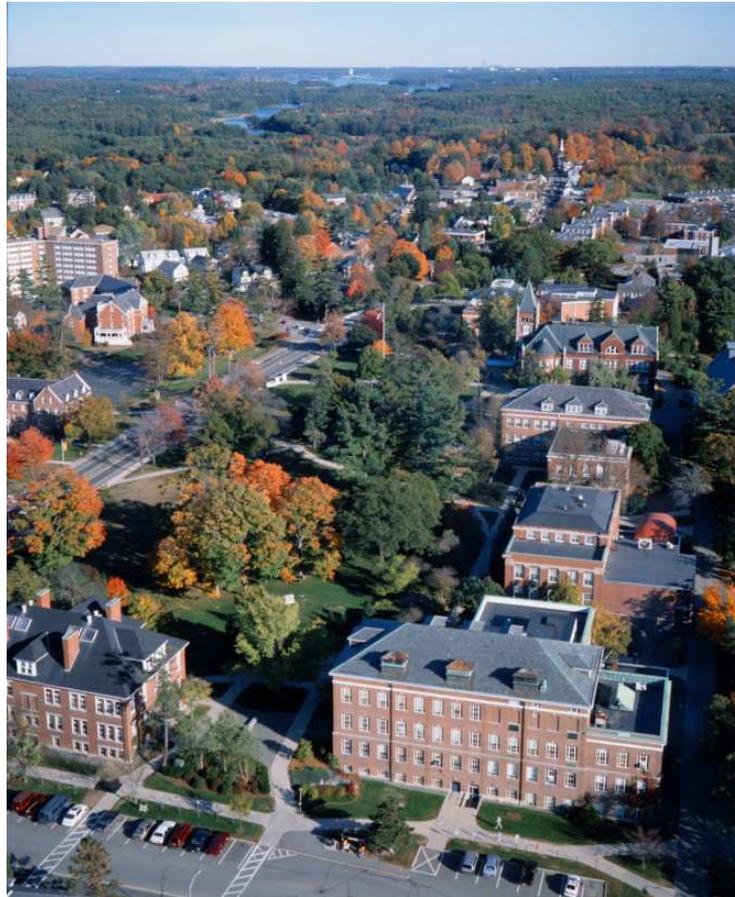- Michael Ernst, Stephanie Weirich (remember: superstars)

Summary

- Hard, but you learn about yourself
- Be friendly — it's a small world
- Maybe 50% is up to you

Good luck!

The University of New Hampshire

Tell your students to apply to grad school in CS at UNH!

- ■ friendly faculty
- ■ funding
- ■ individual attention
- ■ beautiful campus
- ■ low cost of living
- ■ easy access to Boston, White Mountains
- ■ strong in AI, infoviz, networking, systems, bioinformatics