PhD Non-Academic Career Paths & Job Search

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(...and thanks to authors of similar presentations from previous workshops!)
Our Stories

Alan Bivens

- PhD from RPI in 2003
- Currently: Chief of Staff for General Manager IBM Blockchain.
- Previous: Senior Manager Principal Research Staff Member IBM Research
- Research Areas: Machine Learning, Distributed Computing, Analytics, Augmented Reality
- My jobs have included industrial research in systems and services as well as jobs outside of research.

Dan Lustig

- PhD from Princeton in 2015
- Currently: Senior Research Scientist in NVIDIA’s Architecture Research Group
- Research areas: memory consistency models, memory system architecture, general system architecture
- My job is the perfect balance of industry development and active academic research!
What Non-Academic Careers Exist for PhDs?

• First of all: you are not a failure as a PhD if you don’t get (or don’t even want) an academic job! Far from it!

• There are plenty of great non-academic career paths where PhDs can be successful:
  – Industry Research
  – Product Development
  – Startups
  – Even other industries: finance, public sector

• Even (some) flexibility to move back and forth
What is Industry Research All About?

• Can get the best of industry resources and academic research both at the same time!

• Industry research jobs lie on a spectrum
  – Sometimes look 1 year ahead of product development, sometimes many years ahead!

• Many ways to innovate!
  – Writing papers
  – Filing patents
  – Product development
  – Societal impact
Finding a Non-Academic Career as a PhD

• Finding Jobs
  – Build your professional network, Establish a good online presence
  – Pay attention to industry focus areas during your graduate study
  – Make a personal connection

• Interviewing
  – Long process, and expectations for PhDs are high
  – Don’t underestimate it, but don’t be scared either

• Negotiate!
  – Don’t be afraid to do it! It is a really important part of the game! A few hours of discomfort can make an enormous difference!
Having a Successful Non-Academic Career

• Think of yourself as your own mini-startup
  – Do good work, market yourself, avoid bad press

• Find your work-life balance

• Success in academia is about papers and grants

• Success in industry is about making the company $$$
  – …but what that actually means differs for each job
  – …and that still leaves plenty of room for personal and professional growth along the way

• Every job is different; study the success of others and seek out mentors to help you adjust to your particular situation
Backup Questions
(shamelessly borrowed from Stent/Wouhaybi CRA-W 2017 slides)

- Do internships matter?
- How do I showcase my technical skills?
- Can I publish papers? Contribute to open source projects? Work with students?
- How do I find and get on projects?
- How are projects started?
- What is the interview process like?
- How important is teamwork versus individual work?
- How are my work goals set?
- What is the career path of a researcher in your organization?
- Is it possible to switch during your career: Industry/Academia/National Laboratory/Funding Agency/Non-Profit?