

PhD Non-Academic Career Paths & Job Search

Alan Bivens, IBM
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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?





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