



Academic vs. Industrial Research Jobs

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Princeton University, 2005-present

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Longer version: <http://www.cs.princeton.edu/~jrex/talks/research-jobs.ppt>

Choosing Industry Over Academia



- **Strategic aspects**
 - Switch research areas to data networking
 - Industry experience would enhance research & teaching
- **Personal taste**
 - Enjoy tech transfer and working on real-world problems
 - Focus exclusively on research work for a few years
 - Like AT&T from my summer job experiences
- **Balancing trade-offs**
 - Wanted to do research, teach, stay professionally active, mentor students, and so on
 - Possible in industry, in different proportions and ways
 - This balance is harder to strike in industry labs today

Choosing Academia Over Industry



- **Personal growth**
 - Take on new set of professional challenges
 - Ready to (try to) juggle more responsibilities
 - Feeling a little too “comfortable” in the work I was doing
- **Shift in research direction**
 - “Clean slate” research, building on operator perspective
 - New research topics, and connections across disciplines
- **Interaction with students**
 - Happiest in summers when students were around
 - Wanted opportunity for teaching
- **Balancing trade-offs**
 - Striving to stay grounded in reality, with extra effort

What Does Industry Look For?



- **Subject-matter expertise**
 - Knowledge of an important technology or problem area (e.g., a particular protocol)
- **Problem focus rather than technique focus**
 - Emphasis on formulating and solving problems, more so than applying a particular technique
 - ... though having a special hammer is good, too!
- **Willingness to jump right in**
 - Talk to practitioners, write code, collaborate with others, be a “hub node,” share your expertise, ...

But, this varies a lot across companies and groups

What Does Academia Look For?



- **Research agenda**
 - Intellectual contributions, and perhaps practical impact
 - Publications and research funding
 - Novel ideas, and a larger arc to the work
- **Professional visibility**
 - External visibility through awards and leadership roles
 - Citation of your papers and/or external letters
 - Success of your PhD students
- **Good citizenship**
 - Teaching and advising
 - Service within the university, and externally

But, this varies a lot from one school to another