Careers advice:
So you want to do an MSci/PhD?

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Some caveats

- Speaking as an individual
- These are opinions and anecdotes only
- My experience is likely different from others
- Your Mileage May Vary

Who am I?

- I stuck around here for a long time
  - Msci
  - Research Assistant
  - PhD -> research internship at Nokia -> PhD
- Before moving to:
  - Bay Area startup (Boundary)
  - Bay Area Big-Co (Yahoo)

Should you do an MSci/PhD?
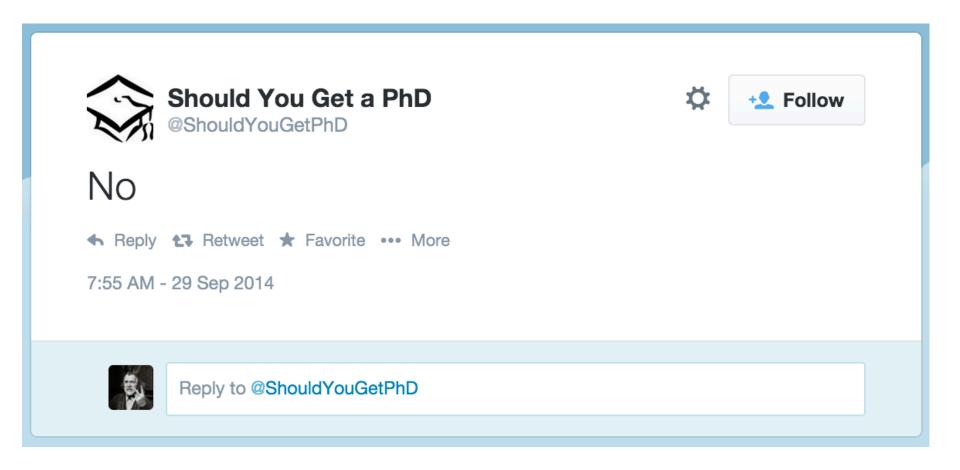
Maybe?

Should you do an MSci?

- The MSci is intended as a primer for research training (PhD)

Should you do an MSci?

- Even if you're *not* intending to go for a PhD, it's a good opportunity to:
  - specialise in a particular area (visas…)
  - sharpen your writing skills
  - get yourself a qualification with greater earning potential

Should you do an MSci?

- In particular, if one part of the course so far has really jumped out, find an academic and talk to them
  - The MSci is fixed around a large research project
  - For me, the focus was network protocols
    - I'd enjoyed all the networks/distributed systems/ operating systems courses

Should you do a PhD?

Should You Get a PhD
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Should you do a PhD?

- If you're in 3rd or 4th year:
  - Do the MSci. It's a transition year between 3rd/4th year and the start of a PhD.
- If you're already doing a Masters:
  - once upon a time, I wrote a thing: http://goo.gl/evzOm5

Should you do a PhD?

- In short:
  - 3-4 years, funded
  - Research/measurement/data analysis
  - Writing papers
  - Writing a thesis
  - Submit/defend

Should you do a PhD?

- Nobody uses it as a metric for coding ability
- Many use it as a metric for smarts around one particular topic

The companies

Nokia: The research internship

- Network measurement experiments

Boundary: The Startup

- A startup doing network measurement
- Pitched at folks with cloud-based infrastructure
  - They can't access measurements from the network gear

Boundary: The Startup

Boundary: The Startup

- I was hired because I had domain-specific knowledge

- It was absurdly fast-paced

- I had clout on technical direction

Caveats on startups

- Learn more about how they're funded
  - You care minimally about how much money they have left
- Don't be too swayed by shares or options
- Talk to management

Yahoo: the lumbering Big-Co

- Pushing the deployment of IPv6
- Doing lots of network measurement to understand:
  - what our IPv4 space is being used for
  - how much IPv6 traffic we get
  - help us encourage more teams to adopt IPv6

Yahoo: the lumbering Big-Co

- Fast-paced, in places, but stable

Caveats on a Big-Co

- It takes months to understand management hierarchy

- You still have a voice, but so do hundreds of others

Observations

- Qualifications mean a lot to HR and lawyers
  - *Qualifications* don't mean as much to engineers
  - *Knowing things* does
- Lots of engineers are terrible
  - At coding
  - Or at writing
  - Or at time management
  - Or at testing
  - Or at any subset of these

So, what was useful?

- Defining a specialism
- Transferrable skills:
  - Lots of practice on writing
  - Project management
- Networking, in the interpersonal sense

What did I learn **after** leaving?

- Better time management
  - Especially at Boundary
- Better software engineering principles
  - CI, CM, CD, revision control across teams

Caveats on the US

- You can get fired immediately
  - You can also leave without notice
- Attitudes toward vacations are weird
  - Unusual to take more than one week out at a time
  - Asking for a bigger vacation allowance is like touching the third rail

Q&A?