

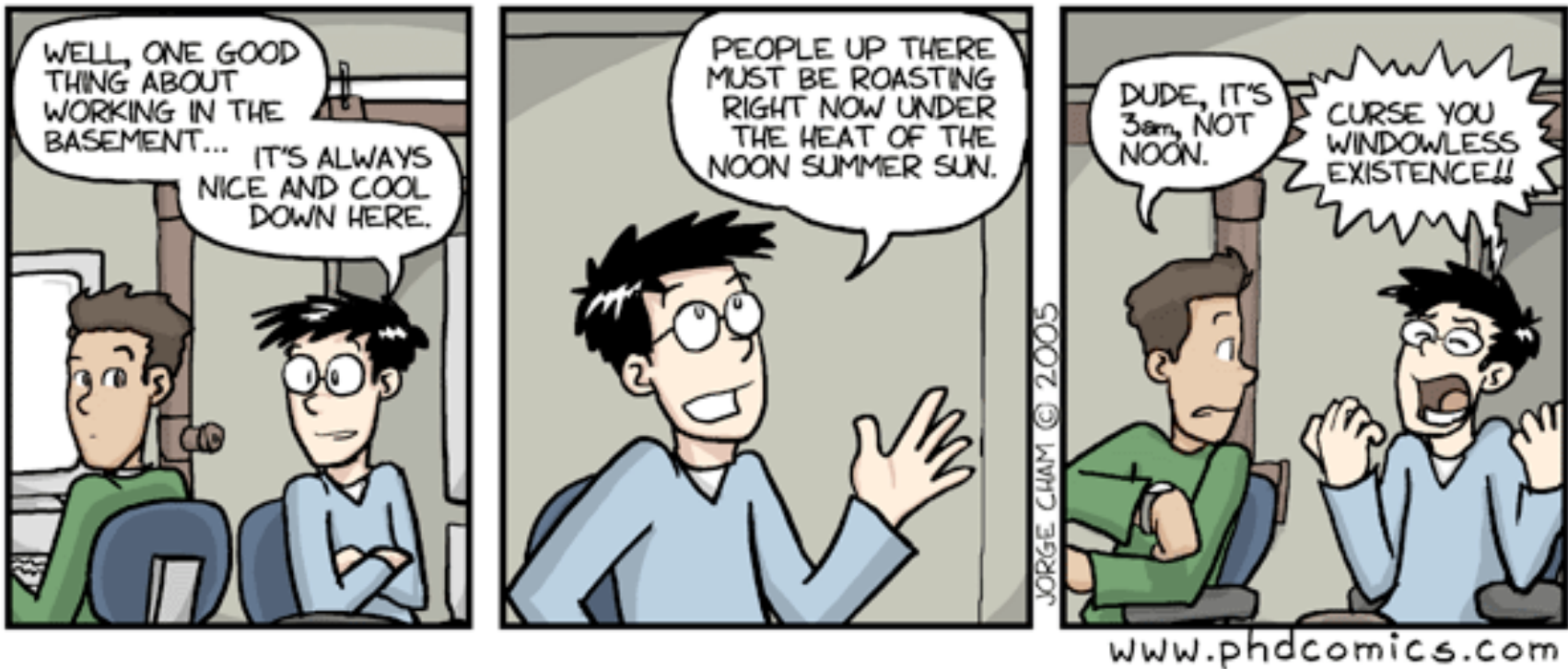
# Why you would want to go to grad school - and how to get there

Jacob Scott

3/21/2006

UC Berkeley

# Relax, I understand j00



(CS 162)

"Piled Higher and Deeper" by Jorge Cham  
www.phdcomics.com

# Acknowledgements

- UCB CS
  - Mike Franklin,  
Barbara Hightower,  
Shareena Samson,  
Mary Byrnes
- MIT
  - Frans Kaashoek
- Northwestern
  - Jamie Tran
- CSUA
  - Michael Rauser,  
Politburo
- HKN
  - Chris Crutchfield,  
Sahand Negahban,  
StudRel, Pub
- UPE
  - Kaisen Lin

# About me

- <http://www.mit.edu/~jhscott>
- Class of 2005, BS EECS
  - CS162/4, 170/2/4, 184/6, 270/6
  - Researched with Professor Karp
- 1st year grad, CSAIL MIT
  - 6.829, 6.854, 6.687
  - Researching under Professor Karger

# About the talk

- Will cover
  - Why you would want to go to grad school
  - How to decide if you want to go
  - How to get there
- Will not cover
  - How to select an advisor
  - How funding works

# Why go

- Research
  - Pushing the field
  - Exploring
- Autonomy
  - No quarterly reports
- Career Options
  - If you want to be a professor, you need a PhD...

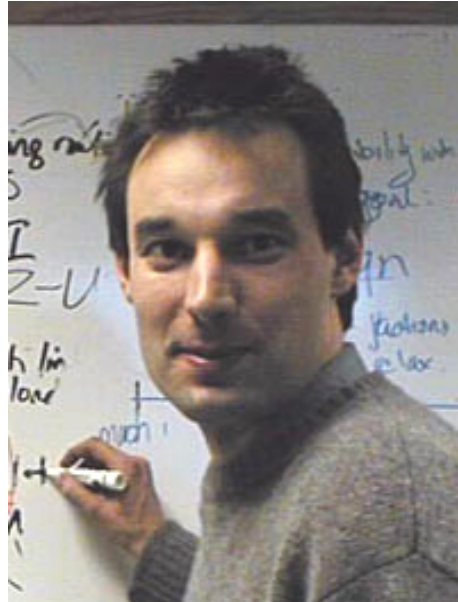
# Why not to go

- Money
  - Grad school: \$30K (if you're lucky!)
  - Industry: \$60K (if you're unlucky!)
- Hours
  - You work as long as you want
  - ... or as long your advisor wants you to
  - ... or as long as everyone around you does
  - However, you usually can set your own hours at grad school

# How should you decide

- Try research
  - Approach professors (or their students, or TAs) in classes you've done well in
  - Taking the initiative takes guts and is admired
- Try industry internships
- Talk to people
  - Grad students
  - Professors
- Get accepted and go to visit weekend!

# How to get ~~there~~ to MIT



- A **virtual** conversation with Professor Kaashoek, head of admissions for CS
  - As relayed by me - **most words and ALL errors are my own**
  - Includes other input

# MIT - the process

- 15 member faculty committee decides
- 1200+ applications --> 60 admits
  - This year 3 from Berkeley, last year also 3
- Two initial rounds
  - Admits' folders ranked 1-4 (4=top 5%, 3=top10%, 2=top 20%, 1=reject)
  - 1st round: one professor looks at each folder
    - 50% of folders survive (600 left)
    - Rejects double checked by chair
  - 2nd round: two more professors review the folders

## MIT - the process (2)

- After initial rounds, two meetings
- 1st meeting - 600 -> 100-150 admits
- 2nd meeting - Final admits decided
- At this stage, **judgments made by collective review**

# MIT - the evaluation

- Folders are ranked based on average score assigned by faculty
- Score breaks down into a number of areas
  - Letters of recommendation
  - Statement of purpose
  - Research experience
  - Grades
  - General experience
  - Education
- No hard weighting of each area

# How to get ~~there~~ to UCB



- A **virtual** conversation with Professor Franklin, vice-chair of admissions for CS
  - As relayed to me by Kaisen Lin - **most words and ALL errors are ours**
  - Includes other input

# UCB - the process

- Committee made up of 50% professor, 50% senior grad students
- Each application assigned to 2 reviewers based on area
- Each application is fully reviewed without automatic cutoffs
- Candidates are ranked in each area
- Committee determines available slots in each area

## UCB - the process (2)

- Candidates are presented to whole committee
- The entire committee must approve each admit
  - This is where outstanding letters of recommendation can help you
- Best candidates are quickly approved, others can be “debated”

# UCB - the evaluation

- What school did you come from
- GPA (recent technical grades weighted more)
- GRE (bad score red flags you)
- Research/Publications
- Activities
- Personal Statement
- Letters of Recommendation

# Drilling Down

- Next few slides will focus on important application areas
- Synthesis information gathered at both schools
  - primarily MIT
- Many of the following points apply generally to other schools

# Letters of recommendation

- You need three letters
- What makes a good letter?
  - Professors are preferred over grad students
  - They should **know** you
    - Ask if they will write a **good letter**
  - There should be details and specifics
  - It is nice if the letter writers are “known” (most UCB profs are)
    - However, **not necessary**

# Statement of purpose

- What are schools trying to find out
  - Can you write well?
  - Are there signs you are creative?
  - Are there signs you would make a good researcher?
- What you should do
  - Spend time on it
  - Explain what you want to do and why
  - Demonstrate interest and curiosity

# Research Projects

- Do **something** (anything)
- Publications are a plus
  - Very well may get read (skimmed)
  - Even un-refereed (e.g., in submission or class projects)
- Demonstrate that you can do research
- Interact with faculty
  - Better letter of recommendation!
- The rest is straightforward
  - Committee determines if you did a good job on the research

# Grades, General Experience, Education

- It is nice to see **good grades in hard subjects**
  - However, **usually no GPA cutoff** (beyond university requirements)
- Your resume is considered
  - Internships, work experience, other activities
- Education
  - Do you have the right background to do good research

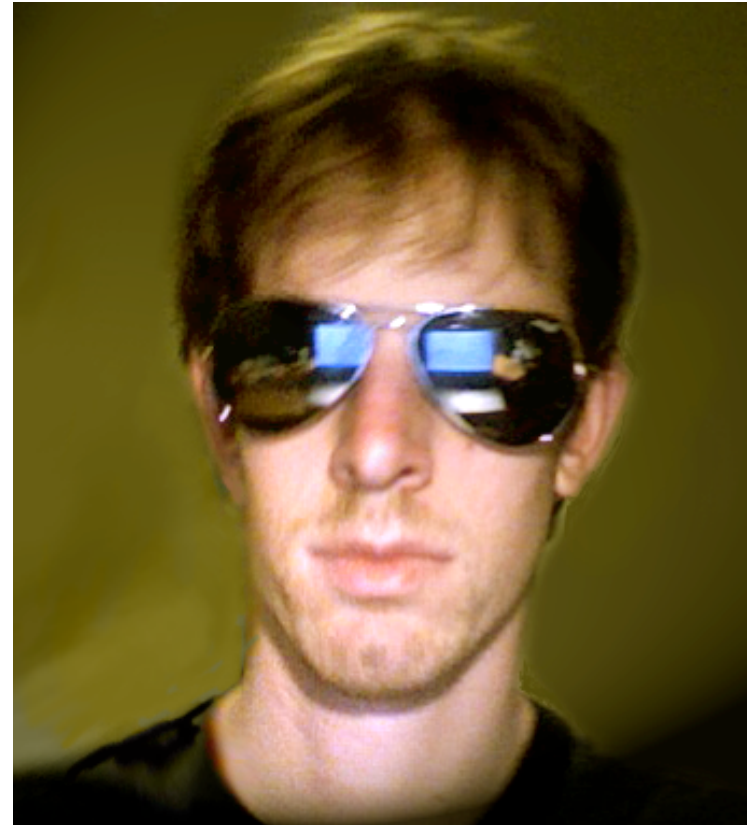
# Some general advice

- It is not what you say, it is what they hear
- Look for the mutual benefit in any situation
  - Reconsider your actions if you can't find any
- **The Five Minute Magic Trick**
- Be nice to people!

# Why you should take my advice



Before



After

# Thanks and Questions

- Reading list
  - Flow: The Psychology of Optimal Experience
  - Blink : The Power of Thinking Without Thinking
  - Faster: The Acceleration of Just About Everything