

Graduate Research Orientation

Tuesday, September 15, 2015 10:52 AM

- Orientation Starting
- Introductions and Impacts

- National Labs and Government
- Jefferson Fellowships

Going into teaching Roughly $\frac{1}{3}$ industry
academic
government

Impact (While @ WPI)

- publications
 - software that is actually in use
 - inspirational, not necessarily owned by you
 - artifacts, techniques, algorithms
 - patents
 - invention disclosure (25K each)
 - teaching
 - grantsmanship
- = Challenges

Impact in the real world

Example: Zachary Pardos

Faculty at UC - Berkeley

Starting with workshops in 2006

- Conferences (30% acceptance rate)

How to double publication volume?

Working with others

- Collaboration strategies

Sharing data and sharing code

- Tension between releasing or not

- "Secret sauce" is a foot in the door

- All code and data is open-source

- People using our data

Implementing algorithms

- Inserting into real systems?

Example: Xiaohu Xiong

- Created ARRS system

- Press

- Sometimes science

- Sometimes impact

- ARRS used by default

- Randomized control trials

- System building is somewhat a waste of time

KDD prize
2nd place

- We are here to do science, not build apps

- But building apps enables collaboration

- System building is somewhat a waste of time
 - But, it can benefit in the long run
- Doctorial-consortium
 - Getting advice from senior folks
- Experimenting and Data Mining
- Setting up and selling as a feature
 - Randomized control trials
- Herb Simon (Turing Award winner)
 - What is your secret weapon?
 - Can you help others while helping yourself
 - Outside users don't really desire being experimented upon
 - Use our "smart setting"

Example: Leena Razzag

- Introduced 1st day at WPI
- Learning how to carve up projects
- Doing well at advising

Example: Yutao Wang

- Determined how students will start out
- Employed at Google
 - Not educational data mining
- Analytics allows you to pick your home page

Example: Yue Gong

- Identify students who are wheel-spinning
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Why do labs hire grad students?

- They want smart people
 - They probably don't care about your specific problem
 - They expect you'll transition to their problems
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How to double-dip?

- There have to be multiple goals

Offer to help brainstorm

Transitioning Technologies

- 7-8 spin-offs
- Licensees
- No business models
- Grad day
 - Interested in patenting and protecting it
- Do you patent even if no business model?
 - license the patent and get royalties
- If WPI doesn't want it, you can keep it
- Could sell it and make money
- Most patents are "idea" patents
- Disclosures
 - 1 year after disclosed