Recruiting and Growing Great Graduate Students

MASOUD ARDAKANI
ASSOCIATE PROF. OF ELECTRICAL AND COMPUTER ENGINEERING

Disclaimer

- I joined in 2005. Have graduated seven MSc and two (may be three!) PhD students. So, my experience is not very extensive.

- My research is on Communication Theory and Information Theory. So, my experience is limited to theoretical research.

Recruiting

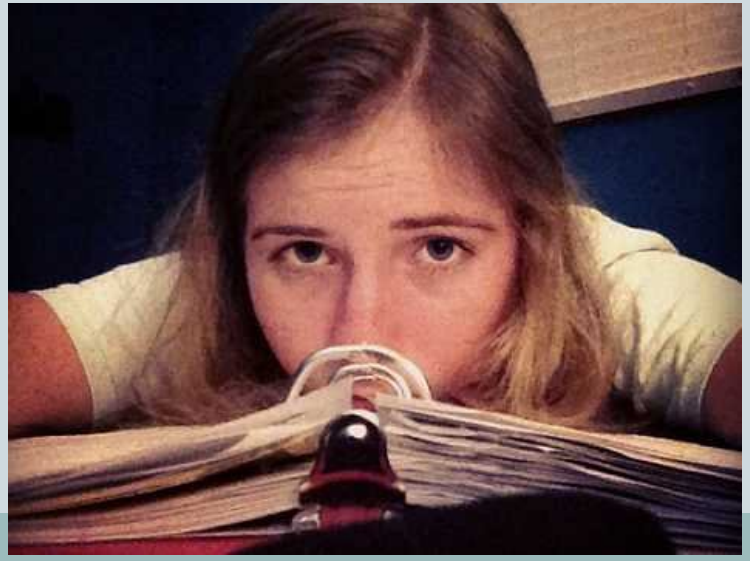
- The process (the wrong way):
  - You receive an email with a CV attachment
  - You are impressed with the CV
  - You make an offer to the applicant
- Fundamental Flaws:
  - The CV is not the whole picture
  - The student may not show up

Recruiting

- The process (a refined version):
  - You get to know an applicant (in an email, via a contact person, through your current students, etc.) [be active not passive]
  - Examine the student file
    - Go to details as much as possible (e.g., GPA vs grades in specific courses that matter most in your area)
    - Discuss it with people who have a better understanding of the details
    - Contact the applicant to clarify the parts that you did not completely understood
  - Interview the student
    - Test applicant's knowledge, abilities and true interests. Give him/her a clear picture of your expectations and how things work in your team/lab/department.
  - Connect the student with other members of your team

Growing

- The process (the wrong way):
  - Give the student a research topic
  - Pay the student
  - Provide lab space/equipment
  - Check on the students progress once in a while



Growing

- The process (defining the project):
  - It is reasonable to give MSc students an already defined project. Usually that is what they prefer.
  - For PhD students, you need to work closely with them to find something which interests both of you.
    - May take several months
    - May require several refinements as things progress
    - Be as patient as possible

Growing

- The process (providing):
  - RA, Lab space/equipment
  - A safe environment (e.g., …)
  - A rewarding and collaborative environment
  - Technical help with their project
    - Be involved in all levels (generating ideas, developing ideas, dissemination of ideas, …)
  - Other trainings
    - Giving good presentations
    - Writing technical papers
    - Defining projects and developing solution plans

The end product is not the project, it is the student.

The Chain Reaction

- This seems an awful amount of work, considering all other responsibilities that we have.
- Your well trained students will come to help you with training your new students.
- Your well trained students can help in other ways (defining projects for new students and even helping with developing proposals)
- Make sure that you start the chain reaction (work very closely with your first batch of students).
- Maintain a nice flow of in and out student to make the best use of the chain reaction.