Outline

• About graduate study
• About supervisor
• What should a graduate student do?
• How to learn effectively?
• Conclusions

This talk serves to correct some misunderstandings that you might have.
Why Graduate Study?

- Incorrect answers:
  - I want to have a diploma to hunt a job
  - I need to solve the Hukou issue
  - I think being a Master/Ph. D. is glorious
  - Most of my schoolmates are pursuing Master/Ph. D.
  - My parents hoped me to be a Ph. D.
  - ...

- Correct answer:
  - To achieve my career goal
Who Should be Responsible for Your Graduation?

• No one can care about your career more than yourself!

You!
About Graduate Study

• Undergraduate
  – Learn and master the **basic** knowledge and skills of a **major**

• Master
  – Learn and master some **advanced** knowledge and skills of a **field**
  – Learn to handle **complex** situations in reality
About Graduate Study

• Ph. D.
  – To advance the state of the art on a valuable topic
    • New problem, new theory, better algorithm, …
    • It is about depth, not breadth: 博士？？专士！
About Graduate Study

• An illustration

http://matt.might.net/articles/phd-school-in-pictures/
About Supervisor

- Supervisor is not your babysitter
- Supervisor is busy
  - Teaching, fund application, paper writing, academic activity, ...
- Supervisor is your career tutor
  - Help you achieve your career goal
  - Not do for you
  - Supporting vs. supervising
About Academic Research

• It is luxurious
• It is competitive
• It is stressful
• Happy only after truly solving a problem
  – Research ≠ Publish Papers
• Enjoyable only if you can excel relatively easily
  – Rewarded by peer respect
• But a lot of freedom!
Successful Researcher

- Has a tag
- Be respected
- Not just technically strong
Successful Researcher

• Communication
  – Ask questions
  – Social (bring your name cards)
  – Visit

• Advertisement
  – Give talks
  – Broadcast

• Serving the community
  – General/Program/Area chairs
  – Editors
  – Heads of societies
What Should a Graduate Student Do?

- Set up a reasonable career goal
- Be prepared for the busy graduate life
- Be proactive in your study and research
- Do physical exercises to keep you energetic
- Communicate with your supervisor moderately
  - Supervisor is passive [《礼记•学记》: “善待问者如撞钟，叩之以小者则小鸣，叩之以大者则大鸣”]
- Work for yourself!
How to Learn Effectively?

• Have interest in your topic
• Devote yourself to the topic
• Learn from whatever sources
  – Supervisor, classmates, senior schoolmates, papers, paper authors, seminar, talks, conferences, internet, social network, …
• Critical thinking [《论语•为政》：“学而不思则罔，思而不学则殆。”]
• Practice, get your hands dirty
• Collaborate
• Manage your time
Development of Skills

- Linear development over time:
  - Competence increases steadily with time.

- Step-wise development over time:
  - Competence increases in steps with time.
Secret of Success

- Believe that I can succeed
Logo of ZERO Lab

- Math
- Coding
- English
- Attitude

ZERO
- Zhouchen’s Extraordinary Research Oasis
- Zeal, Excellence, Reliability, Openness
Conclusions

- It is you who should be responsible for your career
- Excellence builds on hard work and correct ways
- Work for yourself at your full passion!
Ask Yourself

• What is your career goal?

Charles Ling and Qiang Yang, Crafting Your Research Future.