How to Have a Successful Graduate Life?

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Outline

• About graduate study
• About supervisor
• What should a graduate student do?
• How to learn effectively?
• Things ZERO Lab students ought to know
• 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！

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![Diagram showing a broad path leading to a sharp peak, with a red 'X' indicating a dead end.](image-url)
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
• Once having a good idea/solution, finish it ASAP
• 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

Graph showing the development of competence over time with two different patterns: a linear increase and a step function.
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
Things ZERO Lab Students Ought to Know

• Keep the secrets of the on-going research at ZERO Lab.
• You can work anywhere.
• Keep yourself in good conditions so that you can work hard if needed.
• You may ask me for anything except the answers to research problems and the certificate of your degree.
• You must not misuse the freedom for stuffs unrelated to your assigned work. Especially, you must not work for a company without my consent.
• Don’t give me presents before graduation!
Conclusions

• It is **YOU** who should be responsible for your career

• Excellence builds on hard work and correct ways

• Work for yourself with all your passion!
Ask Yourself

• What is your career goal?

Charles Ling and Qiang Yang, Crafting Your Research Future.