

# To Prospective Students

Yanchao Liu, Ph.D.  
Assistant Professor  
Department of Industrial and Systems Engineering  
Wayne State University

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First of all, thank you for reading this note.

Herein I am documenting my thoughts on recruiting research assistants (PhD students) and accepting thesis advisees (primarily master students). Things written here reflect my own requirement and expectation on students. They are in addition to the university, college and departmental admission requirements.

## 1 Attention! Ph.D. Applicants.

When you send me an email introducing yourself and asking questions, please try to be concise and to the point. Concise and fluent emails encourage quick replies, while convoluted ones demand more effort to follow, and will result in delayed replies.

Mentioning that you've read my papers and are interested is not particularly impressive, unless you've truly engaged in the same research area. If this is the case, don't hesitate to email me and discuss. Please be noted: I am not looking for students with any particular research experience. Impressive general qualities include:

- Your college degree is earned from an esteemed university in your country.
- Regardless of your university ranking, academically you have done better than most of your peers in college.
- You have writing samples or code samples to demo and defend.
- Good grades (A and A-) on mathematics and Operations Research methodology courses.
- Hands-on experience (extracurricular) in computer programming, hardware and software development.
- Competition/contest experience and awards.

Things that I don't care as much (i.e., they will definitely not harm your chance of getting recruited; I am just less interested as they are generally less relevant to what I am looking for):

- Entrepreneurial experience.
- Industry experience, unless it involved software or hardware development.
- High GRE or TOEFL scores (cannot be too low either).
- Uninvited details about your own research.

## 2 Doing a Master's Thesis with Me

In pursuing the thesis option for the master's degree, students are expected to explore original research questions and apply the tools of IE, OR and Data Science to generate new knowledge. The thesis work is expected to be published in a peer-reviewed conference proceeding or research journal. A master thesis is at least 50 pages of text (not including front matter and any appendices) and the format should adhere to the Wayne State University's Graduate School Format Manual. Upon completion, students must defend the work in front of a committee, who will pass or fail the defense.

Master students planning to have me as thesis advisor are expected to:

- Done well in prior coursework. Your course grade is a crucial indicator of your academic standing, aptitude and future potential. As a general rule, I only consider students with a first-year graduate GPA above the 75 percentile of class as potential thesis advisees. Be aware that thesis hours are not easy hours – completing a thesis requires substantial amount of work. If you are not genuinely aspired to engage in research, do not choose the thesis option.
- Approach me with a well-crafted writing sample. It is OK that you do not have a thesis-worthy idea or research plan to write about. The writing sample can be your reading notes, critical review of a literature, insight about a subject or problem you've spent time on, or any idea you are proud to share in writing. Merits I am looking for in the writing sample include your critical thinking ability, quantitative and analytical ability, solidity in OR training, sophistication in math and statistics, mastery of computer programming, the ability to organize and express ideas in a logical, coherent and crisp manner, and your attention to detail and pursuit of excellence. You must be the sole author of the writing sample, and keep it within 4 pages.
- Feel free to make an appointment with me for a quick meeting. The ISE department constantly has over 100 master students. My time is limited and I cannot honor all requests for thesis advising. Nonetheless, I'd love to converse and discuss with students on an ad-hoc basis even if we are not in an advising relationship.

My advisees should expect the following:

- For a 4-credit thesis course, you should dedicate around 9 hours of independent study time per week and I will dedicate one-half hour individual meeting time per week to you. You should come prepared for these meetings by completing reading, coding or writing work on time.
- During our weekly meeting, I am all ears and whole hearted to help you achieve your goal. You should seek to maximally utilize of our meeting time. In addition to trying my best to answer your questions and clear roadblocks for you, I will give directions and assign homework to you as well. I will also monitor your progress and quality of work, and provide candid feedback on a regular basis.
- I can assign an office/lab space for you per need basis. I will serve as a reference for your job search or Ph.D. application, provided you have done at least one semester of substantial and satisfactory work with me and are on track with thesis completion.