

Teaching Statement

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Teaching policies

Mentoring

I believe that learning-by-doing is the best education. As a faculty member, I care deeply about my students' learning needs rather than giving classic one-size-fits-all lectures. My teaching style has been influenced by the philosophy of a prominent online educational institution, Minerva University, led by Professor Larry Summers. After I completed a qualification exam, inspired by Minerva University, I launched a private mentorship program with a dozen of undergraduate and graduate students in the top universities in China who planned to apply to study economics at U.S. graduate schools. My twofold purpose for mentoring these students was to support their applications to graduate schools, and to help them with their theses. I provided a list of popular online resources in advance, then, edited their application materials, accompanied by a small video conference discussion with the students. Some mentees were admitted to the leading programs including Stanford, Chicago, and Rochester. Although the mentorship has ended, our relationships still continue. One of my mentees at University of Pennsylvania is now my co-author in an early-stage project.

When I become an advisor to doctoral students, my mentoring will be molded by my experiences with my current primary advisor, Professor George-Levi Gayle. He strikes the best balance between respecting ideas from students and offering hands-on suggestions; shares appropriate resources at the right time; and gives feedbacks that is objective and constructive, even if the project is not exactly in his own field. To maximize my students' potential, I would emulate Professor Gayle's example.

Enhancing collaborative learning

My experience suggests that students learn equally from their peers and from faculty members. As a co-organizer of the Brown Bag Workshop with Professor Michal Fabinger at the University of Tokyo, I interacted with dozens of international students via their research presentations. When I was mentoring students online, I organized an interactive community via the Slack software to exchange information, share resources using Dropbox, and encouraged their offline studying groups, including a small workshop with dinner in Beijing. When I become a faculty member, I plan to launch a weekly workshop in the field, and assign more group works to facilitate students' interaction within the Department. I suspect such opportunities are typically scarce, and I would be able to fill the gaps.

Writing teaching materials and problem sets

I am a strong believer in the efficacy of training using problem sets. I am proficient at writing a teaching materials and problem sets; these are especially useful for larger groups of students outside the classroom. In fact, during 2009 and 2010 in Japan, my collaborator and I published two successful books of problem sets on statistical exercises and case interviews. About 20,000 copies are sold every year, they have been translated into Korean and Chinese, and the books are still sold in large bookstores in Japan. These books are widely used for preparation of recruiting interviews in global consulting firms and technology firms.

As I complete my doctoral work, I will be able to write other materials in the areas of economic theory, research designs, programming tools, and even job market tips for thesis authors. These materials could be shared via my website, a department webpage or on an e-learning platform.

Teaching interests

I am both interested in and qualified to teach courses on labor and new technology, which is the organizing theme of my dissertation. I am passionately interested in the Economics of automation (or artificial intelligence) and Labor economics, and have extensively read through the literature for the past few years. I wish to share this research frontier with students by distilling the learning from my research via my teaching. To facilitate the connection between economic studies and the real economy, I also plan to discuss recent policy debates, citing news articles from the high-quality sources, including *The Economist* or *the Financial Times*. My two years of experience in a business consulting firm (Accenture) also helps me to understand the needs of professional students in business schools and policy schools. I have written up a sample teaching curriculum as follows:

- *Economics of Automation*

Targets: Undergraduate or graduate students in the Economics department, a business school or policy school

- Catch up with the frontier of the emerging field with Agrawal et al. (2019).
- Learn the recent influential task-based modeling of Acemoglu and Restrepo (2018) and discuss its applicability.
- In each session, some students will be assigned to present a paper.

- *Economic of Immigration under Aging Demography*

Targets: Undergraduate or graduate students in the Economics department, or a policy school

- Review influential papers on immigration and demography, following Borjas (2014).
- Discuss a recent debate of immigration's impact on wages, such as Card and Peri (2016).
- Assign term papers and programming assignments.

- *Labor Economics*

Targets: Undergraduate or graduate students in the Economics department, or a policy school

- Discuss a list of influential papers about labor economics from both the experimental and structural camps.
- Review policy evaluation methods in empirical microeconomics (including regression discontinuity, propensity score matching, difference-in-difference, instrumental variable strategy) along the lines of Blundell and Costa Dias (2009).
- Present an overview of econometric backgrounds as per Cameron and Trivedi (2005).

Also, as a junior faculty member who is just completing my PhD, I am interested in filling the gaps in the economics syllabus and directly helping students by providing hands-on training sessions, which would be framed as follows:

- *Research Design for Dissertations*

Targets: middle or senior year PhD students in the Economics department

- Read the recent job market papers by junior faculty members in the top schools.
- Discuss tips for conducting research and writing papers from leading economists. (e.g. Goldrin and Katz (2019), Cochrane (2005))
- Write up a research proposal following the tips, and present it.

- *Introduction to R Programming*

Targets: Under graduate, or beginning PhD students

- Run data cleaning using *tidyverse*.
- Learn visualization with *ggplot2* (bubble charts, bar charts, geographical maps).
- Share useful other packages to boost productivity.

- *Introduction to High Performance Computing in Julia*

Targets: beginning PhD students

- Learn the basics of matrix operations with a consistent coding style.
- Estimating parameters of an economic model with optimization tools.
- Introduce parallelization using cloud computing, AWS (Amazon Web Service).

Summary of courses taught

- *Health Economics* (Washington University), Fall 2018, 35 undergraduate students, for Professor Grace Johnson
- *Microeconomics* (Washington University), Spring 2018, 80 undergraduate students, for Professor Brian Rogers
- *International Trade* (the University of Tokyo), Winter 2013, 8 graduate students, for Professor Michal Fabinger
- *Game Theory* (the University of Tokyo), Summer 2013, 120 graduate and undergraduate students, for Professor Akihiko Matsui

Selected student feedback

- "Most of the information presented cannot be found elsewhere, making the session special and unique. For example, the economics map is definitely a great source for our field choice. I find it easy to position my interest in this perspective. Also, I'm looking forward to having the next class. Some tips are practical as well as interesting."

- "I really had a much good time here and I have learned a lot of splendid things from everyone in the workshop. From my heart, you are regarded as one of the best trainers and friends of mine. I will recommend your workshop to my friends majoring in economics."

- "I'm always impressed by Masa's smart ideas. That's why I insisted on coming to the session even after 12 hours of traveling on a train to get there."

- "Very nice session. You taught a lot that cannot be learned from other classes. I really appreciate it."

Citations

Acemoglu, Daron, and Pascual Restrepo. "The Race between Man and Machine: Implications of Technology for Growth, Factor Shares, and Employment." *American Economic Review* 108.6 (2018): 1488-1542.

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Cameron, A. Colin, and Pravin K. Trivedi. *"Microeconometrics: methods and applications."* Cambridge university press (2005)

Card, David, and Giovanni Peri. "Immigration Economics by George J. Borjas: A Review Essay." *Journal of Economic Literature* 54.4 (2016): 1333-49.

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