

Please find 1) Contact information; 2) Courses taken; and 3) Proposed thesis summary; in this document.

1. Contact information:

Xuan Ye
xye@stern.nyu.edu

Ph.D. Candidate, Information Systems, IOMS Department
Stern School of Business, New York University
KMC 8-186, 44 West 4th Street, New York, NY 10012
<http://people.stern.nyu.edu/xye/>

2. Courses taken:

During my first three years, I took courses on theory and empirical economics, especially topics in industrial organizations. I also took courses on machine learning, data science and some other statistical methods based computer science courses. I have two years remaining and in the following two years, I will mainly focus on my proposed thesis.

Here's a complete list of courses taken (*instructors*) over the previous three years:

First year:

Microeconomics (*Roy Radner*), Technical Foundations (*Alexander Tuzhilin*)
Behavior Research Method (*Lyle Brenner*), Probability and Statistics (*Eric Vanden-Eijnden*),
Digital Economics Seminar (*Arun Sundararajan*), Data Science Seminar (*Foster Provost*), IT
and Organizations seminar (*Natalia Levina*), Statistics and Econometrics (*Bill Greene*);

Second year:

Econometrics I (*Bill Greene*), Industrial Organization I (*Robin Lee*), Game Theory (*Ennio Stacchetti*),
Econometrics II (*Bill Greene*), Strategy (Identification) (*Kei Kawai*); Industrial
Organization II (*John Lazarev*);

Third Year:

Bayesian Modeling and Computation (*Asim Ansari*), Natural Language Processing (*Slav Petrov*),
Advanced Empirical Methods (*Bryan Bollinger*);

3. Research interests and thesis summary:

My general research interest is in the economics of information technology (IT), business value of IT and online markets. Specifically I'm interested in how technological innovation affects market structures, including labor markets and product markets. In my dissertation, I examined agents' strategic behavior in response to technology disruptions in an imperfectly competitive labor markets. I will be proposing my thesis on Dec 10, 2014.

Thesis proposal committee:

Prasanna Tambe (Chair)
Anindya Ghose, Chris Forman, Natalia Levina and John Horton

Thesis proposal summary (tentative):

In my thesis, I aim to make contributions to the understanding of dynamics in IT labor markets with rapid technical change. Prior literature of IT and business value provide limited insights in predicting the inequality rises from technical disruptions. In my thesis, I use three novel data to answer empirical questions from the workers, firms and social planners' perspective.

In the first paper (draft available upon request), we use a novel data from an online leading job boards with a measure of workers' asking price for their next job to test whether worker accept lower wage in order to acquire new technical skills.

In the second paper, we collect data from an online labor market intermediary and construct measures of non-monetary compensation about benefit and perks to analyze hiring and retention strategies in high tech labor markets. We also analyzed how human resource management practices such as work life balance plan impact on workers' willingness to stay and firms' performance.

In the third paper, we use the job listing data to analyze the imperfect factor market competition and agglomeration economies. We propose that instead of agglomeration by patent of industries, firms tend to agglomerate by technical skills. The local market competition for skills determines firms' location choice.