## NBER Economics of Digitization Tutorial

Please find 1) Contact information; 2) Courses taken; and 3) Thesis summary

### 1. Contact information

Xuan Ye Ph.D. Candidate, Information Systems, IOMS Department Stern School of Business, New York University KMC 8-180, 44 West 4th Street, New York, NY 10012 http://people.stern.nyu.edu/xye/

### 2. Courses taken

Here's a complete list of courses taken (instructors):

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 other computer science courses.

### 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. Thesis description

### Thesis committee

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

My research interests are in the economics of information technology (IT), business value of IT and online markets. My thesis is expected to be finished in May 2017. In my thesis, I use novel datasets to study how organizations adjust their management practices to adapt to technological innovation. I measure and quantify the human resource management practices, i.e. recruiting, training and retaining strategies in a large sample of firms using fine-grained textual data that reflects employees' opinions on their employers, and then analyze the relationship between these management practices and firms' decision to make IT innovation investments.