

HYUNGIL KYE

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EDUCATION

Rutgers University

Doctor of Philosophy in Economics (GPA: 3.90/4.00; ABD)

Major: Econometrics and Quantitative Economics

Doctoral Dissertation: Essays on U.S. Stock Market Microstructure and Big Data Analytics

New Brunswick, NJ

Expected May 2021

Soongsil University

Master of Economics (GPA: 4.50/4.50)

Master Thesis: A Study on Asymmetric Adjustments with Local Market Power in the Korean Gasoline Market

Bachelor of Economics (GPA: 4.12/4.50)

Teacher Certification Program: Secondary School Teacher of General Sociology in South Korea

Seoul, South Korea

Aug. 2015

Feb. 2013

EXPERIENCE

Department of Economics, Rutgers University

PhD Researcher

- Conducted empirical research in market microstructure as a primary contributor [[Link to SSRN Author Page](#)]
- Processed 50+ terabytes tick-level data using Java in the Consumer/Producer concurrency pattern to sort out economic measures
- Performed regressions (e.g., Probit/Logistic, instrumental variable approaches, panel-data models), time-series (e.g., stationary tests, ARIMA, PCA, VAR, cointegration), and machine learning (e.g., Lasso/Elastic Net, random forests) analyses
- Deployed machine learning techniques for casual analysis on R (e.g., synthetic control method, double machine learning)
- Employed a Slurm-based high performance computing cluster for big data analytics
- Obtained data in various ways: FTP access to WRDS cloud, web scrapping on Java, and download API via Python
- Worked with popular databases in finance (e.g., Compustat, CRSP, NYSE TAQ)
- Knowledgeable about general notions and research frameworks in microeconomics, financial economics, econometrics, etc.

New Brunswick, NJ

Sept. 2015–present

Research Assistant

- Ran Monte Carlo simulations to evaluate theoretical properties of non-/semi-parametric approaches
- Wrote R codes combined with C++ via Rcpp package to improve computing efficiency through OpenMP-based multithreading

Sept. 2020–present

Teaching Assistant

- Led recitation classes for the 1st-year PhD econometrics course
- Assigned to undergrad behavioral economics, game theory, information economics, econometrics, time series analysis, etc.
- Held office hours regularly and assisted the course instructors with grading, proctoring and writing exams

Sept. 2016–present

Summer Instructor

- Taught Intermediate Microeconomics
- Course quality rating: 4.36/5.00 (vs. department average: 3.86/5.00)

2019–2020

Office of Advanced Research Computing, Rutgers University

Graduate Consultant

- Served as a graduate consultant who helps to employ a HPC cluster for academic research

New Brunswick, NJ

Sept. 2019–May 2020

Department of Economics, Soongsil University

Research Assistant

- Participated in multiple projects funded by Korea District Heating Co., Korea South-East Power Co., and Korea Power Exchange
- Conducted business feasibility analyses for a new construction plan of a coal-based power plant
- Evaluated profitability of electricity wholesale business using the community energy system
- Predicted long-term profits in response to changes in government policies and energy costs

Seoul, South Korea

Feb. 2013–Feb. 2015

Republic of Korea Navy

Sergeant

- Completed two-year mandatory military service

Busan, South Korea

Jul. 2008–Jul. 2010

SKILLS & INTERESTS

Programming: R (advanced), Python (intermediate), Java (intermediate), SQL (intermediate), C/C++ (basic)

Methodologies: Causal Inference, Econometric Modeling, Supervised Machine Learning, Time Series Forecasting

Languages: English (fluent), Korean (native)

Interests: Basketball, Fitness Workout, Soccer

OTHER INFORMATION

Citizenship: South Korea (F1 STEM visa, three-year OPT eligible)

Personal Websites: <https://henrykye.com> (academic), <https://www.linkedin.com/in/henrykye> (LinkedIn)