

HWIKOOK CHOE

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Visa status: STEM-eligible OPT EAD (start date: 10/09/2023)

EDUCATION

University of Chicago

Sep. 2017 - Present

Ph.D Candidate (All But Dissertation) in Econometrics

Master's in Econometrics

Korea University

Mar. 2016 - Feb. 2017

Master's Program in Economics

Korea University

Mar. 2010 - Feb. 2016

Bachelor of Economics and Bachelor Science in Mathematics (Double major)

PROFESSIONAL EXPERIENCE

Datacrunch Global: Associate Data Scientist

Feb. 2023 - Present

- Technical stack in use: Python (pandas, NumPy, PyTorch), MySQL, AWS
- Data integration of order / warehouse / payment within online retail company
- Forecasting and optimization on order / inventory
- Extracting concise reports from raw data to facilitate business decision-making

RESEARCH EXPERIENCE

University of Chicago: Ph.D Candidate in Economics

Sep. 2017 - Present

- Transferable Skills
 - Econometric / statistical modeling
 - Machine learning
 - Data processing
 - Data visualization
- Working Paper
 - [Understanding Forward-Looking Behavior using Dynamic Discrete Choice and Rational Addiction Model: Application to California Cigarette Tax Increase](#)

Abstract: Consumers forward-looking behavior can create change in current purchase and consumption in response to the change in expectation on future price. Using cigarette tax increase in California as exogenous variation and Nielsen IQ consumer panel survey data as the sampled data, I found peak in purchase right before the actual price increase and plunge after the increase. Using dynamic discrete choice model with rational addiction and stockpiling, I performed several counterfactual analyses that changes consumer behavior and tax revenue, which affects the goal of tax policy.
- Work in Progress
 - Quantity Surcharge (with Jean-Pierre Dube and Joonhwi Joo)
 - Competition between First-party and Third-party Sellers on Online Platforms

U.Chicago Booth School of Business: Graduate Research Assistant Sep. 2018 - Jun. 2019

- Topic of Quantitative marketing.
- Data engineering, including scrapping raw data and connecting scrapped data to different relational data

Korea University: Graduate Research Assistant

Mar. 2016 - Feb. 2017

- Topic of Industrial organization.
- Modeling for merger analysis and simulation of hypothetical merger
- Research grant by Brain Korea 21 Plus, Government of Republic of Korea

TECHNICAL STRENGTHS

Statistical Modeling and Data Processing

- Econometrics (Expert)
 - regression based analysis (OLS, GLS, IV, A/B test, etc.)
 - structural equation modeling (softmax model, mixed logit, BLP, etc.)
- Machine Learning (Advanced)
 - decision tree, random forest, boosting
- Data processing (Advanced)
 - experience in various types of data
 - consumer panel survey data, online platform transaction data, product-level characteristics and UPC barcode data, US patent data, credit card fraud detection data, etc.

Programming

- Python (Advanced)
 - PyTorch, numpy, pandas, scipy, scikit-learn, statsmodels, seaborn, matplotlib
 - able to create custom statistical tools ([Synthetic Control](#), [Mixed logit with repeated choices](#))
- SQL (Advanced)
- Tableau (Intermediate)
- R (intermediate)

Language

- English (Fluent)
- Korean (Native)

GRANTS AND SCHOLARSHIPS

Frank H. Knight Fellowship and the J. Lawrence Laughlin Fellowship

2022 - 2023

Department Dissertation Fellowship Award

Doctoral Study Abroad Scholarship

2017 - 2022

Korea Foundation for Advanced Studies

Brain Korea 21 Plus

2016 - 2017

Korea University