Ethan Woojin Che

CONTACT

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EDUCATION

Columbia Business School, New York, NY — 2020-Present
Ph.D. in Decision, Risk, and Operations. (GPA: 4.0/4.0)
Advisors: Jing Dong and Hongseok Namkoong

Columbia University in the City of New York, New York, NY — 2014-2018
B.A. in Economics-Mathematics

RESEARCH INTERESTS

Adaptive Experimentation, Reinforcement Learning, Stochastic Optimization, Queuing systems

WORKING PAPERS

Skill-based Routing via Deep Reinforcement Learning
with Jing Dong and Hongseok Namkoong. Work in progress. 2022.

Adaptive Experimentation at Scale
with Hongseok Namkoong.
NeurIPS 2022 Workshop on Gaussian Processes, Spatiotemporal Modeling, and Decision-making Systems

Discounting in Markov Chain Estimation
with Jing Dong. Work in progress. 2022.

PUBLISHED PAPERS

Robustly Optimal Auction Design under Mean Constraints
EC '22: Proceedings of the 23rd ACM Conference on Economics and Computation (link)

TALKS

"Adaptive Experimentation at Scale".
Conference on Digital Experimentation, 2022. Poster session. Boston, MA.

"Robustly Optimal Auction Design under Mean Constraints".
EC 2022. Boulder, CO.
GAMES 2020. Budapest, Hungary.

"Discounting in Markov Chain Simulation".
INFORMS Annual Meeting 2022. Indianapolis, IN.
INFORMS Annual Meeting 2021. Online.

WORK EXPERIENCE

Research Professional — Aug 2018 - June 2020
University of Chicago Booth School of Business

- Worked with Prof. Eric Budish and Prof. Jacob Leshno.
- Ran econometric tests for large-scale datasets, including centralized college admissions matching data and NYSE TAQ data, with Python and SAS.
- Modeled double-spend attacks in Proof-of-Work cryptocurrencies with queuing theory, and derived theoretical recommendations for confirmation periods in crypto exchanges.

Research Assistant — June 2016 - August 2017
Yale University

- Worked with Prof. Costas Arkolakis.
- Used Python, R and OCR software to clean and analyze historical manufacturing census data; used clustering methods to study spatial distribution of manufacturing industries.

TEACHING ASSISSTANT

MBA Core: Managerial Statistics	Fall 2021, Spring 2022, Fall 2022
PhD Core: Introduction to Econometrics and Statistical Inference	Fall 2021
MBA Elective: Technology Breakthroughs	Fall 2022

RELEVANT COURSES

Convex Optimization, Linear Optimization, Econometrics and Statistical Inference, High-dimensional Probability, Data Structures and Algorithms, Machine Learning.

TECHNICAL SKILLS

Programming Languages: Python (PyTorch), R, SAS, Java, Mathematica
Technical: Excel, PowerPoint, LaTeX, Git