LAUREN QU

lingyunqu@uchicago.edu | https://laurenqu.github.io/

EDUCATION

MA Program in Social Science, Economics concentration, **University of Chicago** 09/2024 – 07/2025

BA in Economics, School of Political Science and Economics**, Waseda University** 09/2019 – 06/2023
- GPA: 3.9/4.0 (ranked 2nd/144) | Coursework: grad-level Microeconomics, grad-level DSGE, grad-level Econometrics
- Summa Cum Laude, 2019-2020 Japan Student Services Organization Scholarship, 2019-2023 Dean's Award Scholarship

BA in Statistics, College of Political Science and Economics, **Korea University** 03/2021 – 06/2022
- GPA: 92/100 | Coursework: Probability Theory, Mathematical Statistics, grad-level Time Series Analysis
- 2021 CAMPUS Asia Scholarship

RESEARCH EXPERIENCE

Research Assistant for Professor Oscar Gálvez-Soriano at University of Chicago, **Remote** 06/2024 – present
Research Assistant for Professor Frankin Qian at University of Northern California, **Remote** 01/2024 – present
- Collaborated with team members to build a theoretical micro model of firm decision-making between capital allocation and hiring flexible or permanent labor. Expanded a simple discrete two-period model to a continuous infinite-period model.
- Calculated the Hessian and Jacobian matrices for the two-period model to check for convergence, implemented dynamic programming and visualized the value function iteration process using Python.

Predoc Research Assistant for Professor Nakata Taisuke at University of Tokyo**, Tokyo, Japan** 08/2023 – 12/2023
- Collected mobility and traffic data from 42 websites of different prefectures with Python (BeautifulSoup, Scrapy).
- Conducted fixed effect regression to examine the relationship between covid new cases and variables including mobility and GDP loss in STATA.

Research Assistant for Professor Kubota So at Waseda University**, Tokyo, Japan** 02/2023 – 09/2023
- Examined the relationship between housework and unemployment. Prepared empirical results in STATA and conducted comprehensive model validations, including IV test, robustness check and alternative mechanism test.
- Utilized machine learning techniques to test theoretical models and conducted extensive numerical simulations and LOOCV analyses to verify key assumption in R.

Research Assistant for Professor Nguyen Giang at Emlyon Business School, **Remote** 03/2022 – 12/2022
- Conducted data cleansing for 3 million+ data. Used R for exploratory data analysis and visualizations in SAS.
- Applied clustering and KNN methods to explore the relationship between social connectedness, private market capital allocation, and overall performance in R.

RESEARCH OUTCOME

Causal Inference in Networks with Noise 02/2023
- Conducted modeling of networks such as social networks and neural networks observed repeatedly over time.
- Utilized Bayesian models to compute the posterior probabilities of the existence of network edges.
- Performed simulation sampling based on the results of posterior distributions to calculate treatment effects.

Python Gale-Shapley Algorithm Stability and Desirability Research 09/2022
- Developed a Python program to implement the algorithm and designed evaluation metrics.
- Demonstrated that the Gale-Shapley Algorithm outperformed random matching and nearest neighbor searching techniques in terms of stability and average matching rank.

Does Digitalization Spillover Negatively Influence the Economy? Empirical Evidence from Japan 11/2022
- Joint work with Prof Qiuling Hua from Jilin University (Jilin, China)
- Constructed the digitalization index by Principal Component Analysis method, and the digitalization spillover effect index by Directed Arrow Graphs Based on Japan's prefecture data in 2011-2019
- Estimated effects of digitalization development spillover to the overall economic activities with OLS and FE estimates, explained population and industrial structure mechanisms with extensible policy implications
- Found that digitalization spillover reduces GDP per capita of the received prefecture by 0.4% (5% significant).

PROFESSIONAL EXPERIENCE

Meituan, Business Analyst Intern *Beijing, China* 02/2021 – 09/2021
- Used SQL and Python for efficient data mining and analytics, integrating internal and external data sources. Developed over 20 statistical models and reports with visualizations and interactive dashboards using libraries such as Pandas, Matplotlib, and Seaborn.
- Conducted extensive market research, producing over 15 weekly reports. Created a comprehensive metrics system using Excel VBA that covered customer base, order volume, transaction volume, profit, etc.
- Devised a system adjustment for re-evaluating the complexity rating of takeaway restaurants, decomposing complexity into 16 variables. Constructed an automated data collection procedure and rating evaluation system for 15 million+ restaurants.

ADDITIONAL INFORMATION

- **Languages:** Chinese, English (TOEFL 110, GRE 339), Japanese (JLPT N1), Korean (TOPIK Level 5)
- **Technical Skills:** Python, R, MATLAB, STATA, Databases MySQL, Latex, SAS, C++
- **Leadership Experiences:** Vice President of LGBT Student Support Club "People-2-People", Vice President of Japanese Voluntary Activities Club