

## Lauren Qu

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### EDUCATION

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

**Georgia Institute of Technology**, *MS in Computer Science (Online)* Atlanta, GA 09/2024 – 09/2026

**Waseda University**, *BA in Economics, GPA: 3.9/4.0, Ranked 2nd/144* Tokyo, Japan, 09/2019 – 06/2023

- Coursework: grad-level Microeconomics, grad-level DSGE, grad-level Econometrics

- Honors: Summa Cum Laude, Japan Student Services Organization Scholarship, Dean's Award Scholarship

**Korea University**, *BA in Statistics, GPA: 92/100* Seoul, South Korea, 03/2021 – 06/2022

- Coursework: Probability Theory, Mathematical Statistics, grad-level Time Series Analysis

- Honors: 2021 CAMPUS Asia Scholarship

### RESEARCH EXPERIENCE

**University of Chicago** *Research Assistant for Prof. Oscar Gálvez-Soriano* 06/2024 – present

- Employed `xtmixed` in Stata to generate regression models, specifying the appropriate fixed effects and implementing robust estimators to ensure accurate and reliable results.

- Tested parallel trends assumption by generating plots for treated and control groups. Verified the validity of DID approach.

**University of Northern California** *Research Assistant for Prof. Franklin Qian* 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.

**University of Tokyo** *Predoc Research Assistant for Prof. Nakata Taisuke* 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.

**Waseda University** *Research Assistant for Prof. Kubota So* 12/2022 – 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 assumptions in R.

**Emlyon Business School** *Research Assistant for Prof. Nguyen Giang* 03/2022 – 12/2022

- Conducted data cleansing for 3 million+ data in SAS. Used R for exploratory data analysis and visualizations.

- Applied clustering and KNN methods to explore the relationship between social connectedness, private market capital allocation, and overall performance in R.

### RESEARCH OUTCOME

**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

- 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).

### WORK EXPERIENCE

**Meituan** *Business Analyst Intern* 02/2021 – 09/2021

- Used SQL and Python for efficient data mining and analytics, integrating internal and external data sources. Developed 20 statistical models with visualizations and interactive dashboards.

- Conducted extensive market research, producing 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.

### OTHER SKILLS

**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, President of Japanese Voluntary Activities Club