

LAUREN LINGYUN QU

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SKILLS & INTERESTS

- **Research Interests:** Macroeconomics, Labor Economics, Finance, International Economics
- **Skills:** Empirical Design, Quantitative & Computational Methods (Causal Inference, DID, Estimation, Calibration), Data Collection & Statistical Analysis, Economic Modeling, Data Visualization, Machine Learning, Project Management
- **Languages:** Chinese, English, Japanese, Korean (Fluent)
- **Technical:** Python, R, MATLAB, STATA, C++, Databases MySQL, LaTeX, SAS

EDUCATION

University of Chicago | Chicago, IL

MA, Social Sciences – Economics, Expected June 2025

Georgia Institute of Technology | Atlanta, GA

MS, Computer Science (Online), September 2024 – Present

Waseda University | Tokyo, Japan

BA, Economics, Summa Cum Laude, GPA: 3.9/4.0, Rank: 2/144, June 2023

Korea University | Seoul, South Korea

BA, Statistics, GPA: 92/100, June 2022

SELECT COURSEWORK

- **Graduate:** Microeconomics (PhD-Level), Macroeconomics (PhD-Level), Econometrics (PhD-Level), Machine Learning, Deep Learning, Reinforcement Learning, Algorithms
- **Undergraduate:** Machine Learning, Microeconomics (Grad-Level), Macroeconomics (Grad-Level), Econometrics (Grad-Level), Time Series Analysis (Grad-Level), Probability Theory, Mathematical Statistics

RESEARCH EXPERIENCE

University of Chicago | Chicago, IL

Research Assistant - Prof. Oscar Gálvez-Soriano, June 2024 – Present

- Conducted regression analysis using redgfe and xtevent packages in STATA, specifying 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 validity of DID approach.

University of North Carolina | Chapel Hill, NC

Research Assistant - Prof. Franklin Qian, January 2024 – Present

- Collaborated with team members to build theoretical micro model of firm decision-making between capital allocation and hiring flexible or permanent labor; Expanded simple discrete two-period model to continuous infinite-period model.
- Calculated Hessian and Jacobian matrices for two-period model to check for convergence.
- Implemented dynamic programming; Visualized value function iteration process using Python.

University of Tokyo | Tokyo, Japan

Predoctoral Research Assistant - Prof. Nakata Taisuke, August 2023 – December 2023

- Collected mobility and traffic data from 42 websites of different prefectures with Python (BeautifulSoup, Scrapy).
- Conducted fixed effect regression to examine link between new Covid cases and variables (mobility, GDP loss) in STATA.

Waseda (Sōdai) University | Tokyo, Japan

Research Assistant - Prof. Kubota So, December 2022 – September 2023

- Examined 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 | Lyon, France

Research Assistant - Prof. Nguyen Giang, March 2022 – December 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 relationship between social connectedness, private market capital allocation, and overall performance in R.

PAPERS & PUBLICATIONS

Hua, Q. & Qu, L. (2023). *Does digitalization spillover negatively influence the economy? Empirical evidence from Japan* [Manuscript submitted for publication]. Department of Economics, Jilin University.

RESEARCH PROJECTS

Python Gale-Shapley Algorithm Stability and Desirability Research, September 2022

- Developed Python program to implement the algorithm and designed evaluation metrics.
- Demonstrated 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, November 2022

- Constructed digitalization index by Principal Component Analysis method, and digitalization spillover effect index by Directed Arrow Graphs Based on Japan's prefecture data in 2011-2019.
- Estimated effects of digitalization development spillover to overall economic activities with OLS and FE estimates, explained population and industrial structure mechanisms with extensible policy implications.

PROFESSIONAL EXPERIENCE

Changchun National Development and Reform Commission | Changchun, China

Consultant, September 2023 – December 2023

- Managed and facilitated approval, validation, and review processes for investment projects entering Changchun City in accordance with regulatory authority defined by State Council.
- Ensured compliance with guidelines and regulations, contributing to successful execution of projects within specified region.
- Monitored and assessed risks and potential hazards, including evaluating risks associated with crowd dynamics, adverse weather conditions such as blizzards, and fluctuations in commodity prices for investments.
- Provided insightful analysis and formulated relevant work recommendations to mitigate identified risks, ensuring proactive management and strategic decision-making.

China International Capital Corporation Limited | Beijing, China

Limited Fixed Income Intern, July 2023 – September 2023

- Conducted in-depth research on 25 ABS projects, including financing leases, accounts receivable, project final payments, and consolidated REITs; Analyzed creditworthiness of projects and completed credit evaluation reports.
- Analyzed macroeconomic trends and bond market movements; Assisted researchers in writing fixed income reports.
- Conducted financial analysis on target companies using absolute valuation methods; Automated the calculation process of EBIT, WACC, equity cost, and other data with Python.

Meituan | Beijing, China

Strategic Investment Intern, April 2023 – July 2023

- Authored desk research report on Japanese food delivery market; Conducted in-depth research on macro policy, historical and current development of the industry, and competition situation.
- Conducted financial research on both listed and unlisted companies in target industry using relative valuation methods.
- Analyzed operating performance of companies in the enterprise software industry; Deconstructed financials into 16 indicators, such as operational metrics, SaaS metrics, startup company indicators, and customer indicators.
- Supported work process of the strategic investment team through expert interviews and desk research.

Business Analyst Intern, February 2021 – September 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.
- Conducted extensive market research, producing over 15 weekly reports, and created a comprehensive metrics system using Excel VBA that covered customer base, order volume, transaction volume, profit, etc.
- Devised novel system design for evaluating complexity rating of takeaway restaurants, decomposing complexity into 16 variables and constructed automated data collection procedure and rating evaluation system for 15M+ restaurants.

Nomura Research Institute | Beijing, China

Business Analyst Intern, April 2022 – July 2022

- Benchmarked the hydrogen vehicle market and developed a competitive landscape analysis of 5 leading firms
- Consolidated key data and indicators of client companies, identified major factors affecting strategic growth with internal database statistics and developed targeted proposals, produced 10+ weekly reports

Industrial Securities | Shanghai, China

Equity Research Analyst Intern, September 2021 – December 2021

- Analyzed social service & retail industries, particularly duty-free sector; Utilized Python to collect and visualized diverse data.
- Produced in-depth industry research report, featuring market forecasts and investment recommendations.
- Applied advanced Python coding to gather and analyze more than 200,000 rows of data on 88 variables, covering asset quality and return for over 20 A-share companies; Developed financial models and produced five independent reports.
- Conducted extensive fundamental research, encompassing operations and financial summaries, near-term catalysts, and valuations based on DCM and EV/EBITDA methodologies.