Xiaoying Liu

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EDUCATION

Cornell University   Sep 2019 − May 2025 *(Expected)*
Ph.D. Candidate in Applied Economics   *GPA: 3.73/4*

Cornell University   Sep 2019 − May 2022
M.S. in Applied Economics   *GPA: 3.73/4*

Peking University   Sep 2016 − Jul 2019
M.S. in Economics   *GPA: 3.62/4*

Central University of Finance and Economics   Sep 2011 − Jul 2015
B.A. in Project Management (major), Finance (minor)   *GPA: 90.34/100*

EXPERIENCE

Economist Intern, *Amazon*   May 2024 − Aug 2024
- Led an independent project to investigate bias in observational studies by comparing them with historical RCT data, crucial for accurately evaluating feature impacts on high-value actions and seller growth across nearly 90% of projects within the organization.
- Innovatively applied Inverse Probability of Sampling Weighting (IPSW) to generalize RCT results to the observational population, and used Propensity Score Matching (PSM) and Double Machine Learning (DML) to estimate treatment effects from observational data.
- Delivered high-impact insights by identifying a consistent pattern of overestimation in observational studies, with findings that provide actionable guidance for business teams to correct biases and make more informed decisions when RCTs are unavailable. This work directly supports better feature evaluation and resource allocation strategies.

Research Assistant, *Cornell University*   May 2023 − May 2024
- Addressed gaps in existing job satisfaction research by co-designing a comprehensive survey to uncover what employees truly value in their jobs, gathering both quantitative and qualitative data on job satisfaction, job match, and workplace relationships.
- Co-authored a paper in *Labour Economics* using survey data to review and analyze job match quality measures, demonstrating that commonly used measures often lack correlation, thus advocating for a more nuanced approach.
- Applied NLP techniques and GPT models to analyze open-ended responses, identifying key attributes that influence job satisfaction but are often overlooked in traditional studies.

Survey Coordinator, Fieldwork Team Leader, *Peking University*   Jun 2018 − Mar 2019
- Contributed to the design and execution of China's first large-scale enterprise survey on entrepreneurship, involving 58,500 samples, to address critical gaps in understanding the entrepreneurial landscape.
- Led two teams of 8 enumerators, collecting data from 800 enterprises, ensuring high-quality data through meticulous management and route planning.
- Applied fieldwork insights to analyze shell companies in China, facilitating collaboration with the State Administration of Industry and Commerce.
- Enhanced the design of the ESIEC 2019 survey, improving data collection methodologies based on previous fieldwork experience.

Research Assistant, *Peking University*   May 2017 − Mar 2018
- Investigated the impact of China's environmental inspections, identifying overreaction by local governments that could harm non-polluting enterprises.
- Used Difference-in-Differences and Event-Study strategies to analyze firm entry data, finding significant declines in both polluting and non-polluting manufacturing entries.
- Findings were communicated to officials from the Ministry of Ecology and Environment, influencing environmental policy discussions.

Working Papers

Teleworkability: Weakened Tie between Workplace and Residential Place
- Investigates how increased teleworkability affects workers' location choices and labor market outcomes, addressing a growing interest in how remote work reshapes economic geography.
- Finds that teleworkable workers tend to live farther from their workplace, in communities with better amenities, and earn higher wages, suggesting a shift in the traditional work-home dynamic.
- Develops a spatial general equilibrium model incorporating worker heterogeneity and local area consumption to capture these shifts, and simulates the model to demonstrate the broader economic effects of teleworkability.

Are Businesses Doing Business in China? *with Ruochen Dai, Shuo Liu, Xiaobo Zhang*
- Addresses the issue of shell companies in China, where nearly 40% of registered firms are inactive, potentially skewing economic data and policy decisions.
- Uses enterprise survey data to construct an XGBoost model that detects these inactive companies, achieving a precision rate of 0.71 and a recall rate of 0.65, offering a more accurate representation of business activity in China.

Publications

Measuring the Quality of a Match (*Labour Economics* 2024) *with Michele Belot, Vaios Triantafyllou*
- Reviewed and compared five different measures of match quality using data from a Prolific survey of U.S. employees and the NLSY79 dataset.
- Highlighted the importance of using multiple measures to assess job match quality, demonstrating that common measures often lack correlation.

Teaching Experience

Adjunct Faculty, *Elmira College*   Jan 2024 – Apr 2024
- ECO 3200: International Trade and Finance

Teaching Assistant, *Cornell University*   Aug 2019 – May 2023
- AEM 4300: International Trade Policy, Spring 2023
- AEM 4421: Research and Strategy in Emerging Markets, Spring 2021 2022
- AEM 7010: Applied Microeconomics (Ph.D. core), Fall 2020 2021 2022

Skills

Data Analysis: Causal Inference, Causal Machine Learning, Machine Learning

Programming: Python, Stata, SQL, R

Tools and Platforms: AWS, Jupyter Lab, Git