Yujuan Gao

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Professional Summary

Ph.D. candidate in Applied Economics specializing in **causal inference, econometric modeling, and large-scale data analysis**. Experienced applying experimental design and analytical methods to answer policy-relevant questions in education, health, labor, and technology.

Education

University of Florida, Gainesville, FL **August 2021 – May 2026**
Ph.D., Applied Economics, Food and Resource Economics Department
Graduate School Fellowship (Merit-based, 2021–2025)

Stanford Center on China's Economy and Institutions, CA **August 2018 – August 2019**
Visiting Graduate Research Fellow

Shaanxi Normal University, China **August 2016 – December 2019**
M.A., Economics

Shanxi University of Finance and Economics, China **September 2012 – July 2016**
B.S., Statistics

Technical Skills

Programming: Python, R, SQL, LaTeX, GitHub, TensorFlow, PyTorch, scikit-learn, CausalML
Methods: Difference-in-Difference, IV, Synthetic Control, Matching, Geo-spatial Analysis

Research Projects and Leadership Experience

Stanford University, Stanford, CA **July 2025 – Present**
Research Scientist, AI Impact on Employment and Housing Markets

- Directed cross-functional research team applying **Natural Language Processing (NLP)** algorithms to analyze 500 million job posting records and quantify AI exposure effects on employment demand

University of Florida, Gainesville, FL **August 2021 – Present**
Lead Researcher, Food and Resource Economics Department
Computer Vision Model Development [Link]

- Architected and deployed **Convolutional Neural Network (CNN)** in TensorFlow for automated traffic sign recognition and classification
- Enhanced model performance from 82% to 94% accuracy through systematic architecture optimization and hyperparameter tuning

Broadband Infrastructure and Economic Outcomes Study [Link]

- Integrated geospatial 3G coverage data with 80,000 DHS household records (240,000 observations) using **staggered Difference-in-Differences** and **hazard modeling** to analyze infrastructure impacts on demographic and economic outcomes

- Delivered comprehensive analysis revealing 11–16% reduction in early fertility and 7.6 percentage point increase in young women's employment, providing evidence-based policy recommendations

Behavioral Economics Consumer Choice Study [Link] *(Published in Food Policy)*

- Designed and executed **randomized A/B experiment** evaluating color-coded nutrition labels' effectiveness on consumer decision-making and food choice behavior
- Achieved measurable behavioral changes: 18% reduction in decision time and 10 percentage point increase in healthy food selection

Spillover Evaluation of a Technology-Based Education Intervention [Link]

- Led a **randomized controlled trial** with 1,096 mothers, deploying a digital messaging platform and coordinating with the tech team throughout development.
- Designed and tested a computer-based educational game with engineers, achieving a **0.22 SD improvement** in parenting knowledge through targeted information interventions.

Child Development and Urbanization Study [Link] *(Published in Child Development)*

- Deployed **LENA audio technology** to analyze home language environments and assess urbanization effects on child development outcomes in rural and peri-urban China
- Published peer-reviewed findings demonstrating significant associations between urbanization patterns and early childhood language exposure

Digital Health Intervention Impact Evaluation [Link]

- Led a **randomized controlled trial** with 1,096 mothers, deploying a digital messaging platform to test mobile health interventions.
- Collaborated with the tech team on platform design and achieved a **0.22 SD increase** in parenting knowledge through targeted information delivery.

Save the Children, China **July 2020 – January 2021**

Consultant, Early Childhood Development Project

- Designed and executed comprehensive impact evaluation using **randomized controlled trial** methodology for 2,000+ families across three provinces
- Reduced data collection time by 50% through digital tools implementation and authored comprehensive policy report for international development stakeholders

Stanford University, Stanford, CA **August 2018 – August 2019**

Visiting Graduate Research Fellow, Center on China's Economy and Institutions

Peer Effects in Educational Environments Study [Link]

- Applied advanced friendship formation analysis using **physical distance as instrumental variable** for peer group selection in classroom microenvironments
- Established causal peer effects on academic performance through innovative spatial network analysis methodologies

Migration and Child Development Impact Assessment [Link]

- Implemented **Propensity Score Matching (PSM)** and **Bayesian Additive Regression Trees (BART)** for robust causal inference on maternal migration effects
- Quantified positive impact of migration on child development outcomes, demonstrating 0.8 standard deviation improvement

Teaching Assistant, University of Florida **August 2021 – Present**

- Served as teaching assistant for six graduate courses (358 students) in econometrics and agribusiness