YUJUAN GAO

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EDUCATION

University of Florida, Food and Resource Economics Department *August 2021 - Current*
Ph.D., Applied Economics

Stanford Center on China's Economy and Institutions *August 2018 - August 2019*
Visiting Graduate Research Fellow, Supervised by Scott Rozelle

Shaanxi Normal University *July 2016 - January 2020*
M.A., Economics

Shanxi University of Finance and Economics *July 2012 - June 2016*
B.S., Statistics

PREVIOUS EMPLOYMENT

Minzu University of China, Research Assistant for Yu Bai *July 2020 - January 2021*

Consultant for *Save the Children Yunnan Ludian 0-3 Years Early Childhood Development Project*

PROFESSIONAL SUMMARY

Data scientist and economist specializing in causal inference, machine learning, and experimental design with expertise in:

- Production-grade ML solutions for large-scale data analysis (Python, R, Stata)
- Advanced econometric & causal inference methods for behavioral analysis
- End-to-end data pipelines for high-dimensional datasets
- Robust laboratory and field experiment design with rigorous statistical evaluation

SKILLS

Programming: R, Stata, Python, SPSS, SAS, ArcGIS, LaTeX, GitHub
Software: Survey Solutions, Qualtrics
Package: Econ ML, AutoGluon, Scikit-learn, PyTorch, Causal ML
Research Filed: Behavior Economics, Causal Inference, Social Networks, Spatial Economics

PUBLICATIONS

Chen, Xuqi, Lisa House, Zhifeng Gao, **Yujuan Gao** (2024). "Do Color-Coded Nutrition Facts Panels Nudge the Use of Nutrition Information on Food Packaging?" *Food Policy.* [click here]

Ma, Yue, Xinwu Zhang, Lucy Pappas, Andrew Rule, **Yujuan Gao**, Sarah-Eve Dill, Tianli Feng, et al. (2023). "Associations between Urbanization and the Home Language Environment: Evidence from a LENA Study in Rural and Peri-urban China." *Child Development.* [click here]

Yujuan Gao, Derek Hu, Even Peng, et al. (2020). "Depressive Symptoms and the Link with Academic Performance among Rural Taiwanese Children." *International Journal of Environmental Research and Public Health.* [click here]

Ma, Yue, **Yujuan Gao**, Jason Li, et al. (2020). "Maternal Health Behaviors during Pregnancy in Rural Northwestern China." *BMC Pregnancy and Childbirth.* [click here]

Ma, Yue, **Yujuan Gao**, Wang, Yue, et al. (2018). "Impact of a Local Vision Care Center on Glasses Ownership and Wearing Behavior in Northwestern Rural China: A Cluster-Randomized Controlled Trial." *International Journal of Environmental Research and Public Health.* [click here]

MACHINE LEARNING PROJECT

Traffic Sign Classification (with Thiago de Andrade, Rui Guo and Cody Haby)

- Developed CNN for multi-class image classification using TensorFlow
- Implemented various architectures with convolution, pooling, and dense layers
- Achieved 94%+ accuracy through systematic hyperparameter tuning
- Applied data augmentation to improve performance with limited training data

JOB MARKET PAPER

Unintended Consequences of Best Intentions: Examining Spillover Effects in Targeted Supplementary Education Interventions

- Designed and implemented a cluster-randomized field experiment across 130 schools (n=6,500)
- Developed predictive models to analyze user engagement patterns and interaction dynamics
- Employed causal forest methods to uncover heterogeneous treatment effects across user segments
- Implemented production-grade code to analyze real-time engagement metrics and network effects

WORKING PAPERS

Using Text Messages to Improve Parenting Knowledge and Early Childhood Development in Rural China (with Yue Ma and Susanna Loeb), under review at *Journal of Comparative Economics*

- Deployed a real-time optimization platform serving 1,096 users across seven research sites
- Implemented automated workflows in R to analyze user behavior patterns
- Tracked engagement metrics, response rates, and behavioral changes in real-time
- Achieved 0.222 SD improvement in key metrics with heterogeneous effects across user segments

The Impact of 3G Network Coverage on Fertility Decisions and Infant Mortality in Nigeria (with Conner Mullally, Xinde "James" Ji, and Jared Gars)

- Matched geo-referenced DHS survey data with mobile coverage data
- Used two-way fixed effects models to establish causal relationships
- Conducted spatial buffer analyses (20-40km) to identify dose-response effects
- Applied sample selection correction methods for unbiased estimation
- Found 3G coverage reduces fertility rates, with doubled impact for adolescents

AWARDS, SCHOLARSHIPS, AND GRANTS

University of Florida Graduate School Fellowship, University of Florida *2021-2025*

J. R. Greenman Memorial Scholarship from CALS, University of Florida *2022, 2024*

Best Paper Awards in 2021 Agricultural & Applied Economics Association Annual Conference *2021*

Scholarship for Graduate Researcher at Stanford, China Scholarship Council *2018-2019*