YUJUAN GAO

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PROFESSIONAL SUMMARY

- Data Scientist with expertise in causal inference, machine learning, and geospatial analytics.
- Experienced in building scalable data pipelines, analyzing high-dimensional survey and experimental data, and delivering actionable insights for product, policy, and business strategy.

SKILLS

Programming: Python, R, ArcGIS, Stata, TensorFlow, PyTorch, scikit-learn, GitHub, LaTeX
Packages: EconML, AutoGluon, Causal ML

EXPERIENCE

University of Florida, Food and Resource Economics Dept. *Aug 2021 – Present*
Teaching and Research Assistant

- Built geospatial and ML pipelines analyzing 80k+ survey and satellite records
- Applied causal inference methods (DiD, IV, fixed effects) using Python/Stata
- Managed large-scale experiments (130+ schools, 10k+ participants) with randomized interventions
- Produced ML-ready datasets and visualizations to guide publications and policy insights

Save the Children Yunnan (China) *Jul 2020 – Jan 2021*
Consultant – Early Childhood Development Project

- Designed and analyzed survey data for 0–3 years ECD program across rural counties
- Built digital data collection tools; ran impact evaluation in R and Stata
- Delivered findings to program managers, shaping regional implementation strategy

PROJECTS

Traffic Sign Classification (TensorFlow CNN) *ML Project*

- Built multi-class image classifier using convolutional, pooling, and dense layers in TensorFlow
- Optimized hyperparameters to achieve 94%+ test accuracy across thousands of traffic sign images
- Demonstrated ability to scale deep learning models for real-world classification tasks such as autonomous driving

Color-Coded Nutrition Labels *Published in Food Policy (2024)*

- Designed controlled lab experiment (n=248) to test visualization effects on consumer food choices
- Applied causal analysis isolating color-coding from information content
- Measured 23% faster decision time and 18% higher processing efficiency
- Results show how user interface design can improve decision-making and information processing efficiency

Urbanization & Language Development *Published in Child Development (2023)*

- Analyzed audio data from 158 households using LENA (Language Environment Analysis) to study early child development

- Found peri-urban children received 22% fewer adult words and 26% fewer conversational turns compared to rural peers
- Applied multivariate regression to identify key drivers such as maternal employment and household composition
- Results revealed counterintuitive patterns, showing socioeconomic status did not always predict stronger language outcomes

Education Spillovers *Poster at 2025 ASSA Annual Meeting*

- Ran randomized controlled trial across 130 schools (n=10k+) comparing computer-assisted vs. workbook learning
- Identified negative peer spillovers (-0.087 SD, $p<0.05$) for non-targeted students when classroom resources shifted
- Showed how visible interventions altered perceived incentives, creating unintended behavior changes

Tips-by-Text Parenting Program *Under Review at China Agricultural Economics Review*

- Evaluated SMS-based intervention with 1,096 mothers across 6 rural counties
- Improved parenting knowledge (+0.22 SD, $p<0.01$) and adoption of stimulating practices
- Identified heterogeneous treatment effects explained by behavioral economics concepts: inattention and limited information
- Results demonstrate how lightweight digital nudges can shift user behavior at scale

3G Coverage & Fertility Outcomes *To be presented at 2026 ASSA Annual Meeting*

- Built geospatial pipeline linking 80k+ survey records with mobile network rollout data in Nigeria
- Applied staggered DiD with two-way fixed effects; identified 11–16% decline in fertility among young women
- Found effects driven by delayed cohabitation and first births, alongside increased wage employment and household autonomy
- Results illustrate how digital infrastructure adoption can trigger large-scale behavioral and demographic shifts

EDUCATION

University of Florida, Food and Resource Economics Dept. *Aug 2021 – Present*
Ph.D., Econometrics and Quantitative Economics

Stanford Center on China's Economy and Institutions *Aug 2018 – Aug 2019*
Visiting Graduate Research Fellow, supervised by Scott Rozelle

Shaanxi Normal University *Aug 2016 – Dec 2020*
M.A., Economics

Shanxi University of Finance and Economics *Sep 2012 – Jul 2016*
B.S., Statistics

AWARDS & SCHOLARSHIPS

UF Graduate School Fellowship	2021–2025
J. R. Greenman Memorial Scholarship	2022, 2024
Best Paper Award, AAEA Annual Conference	2021