7509 Palo Verde Road
Irvine, CA 92617
www.linkedin.com/in/jieyu-gao

JIEYU GAO

(765) 637-6805
jieyug1@uci.edu
github.com/jieyugao1

Education

University of California, Irvine — **Irvine, CA** — **September 2018 – Present**
- **Ph.D. Candidate in Econometrics and Quantitative Economics** — **March 2024 (Expected)**
- **M.A. in Economics** — **December 2019**
- **Field of concentration:** Econometrics (Causal Inference, Bayesian Econometrics), Industrial Organization

Purdue University — **West Lafayette, IN** — **Aug 2012 – May 2016**
- **B.S.with Highest Distinction Honor**, Economics and Applied Statistics (Dual Degree)
- **GPA:** 3.99/4.00

Skills

- Java, Python, Jupyter Notebook, SQL,Matlab, Gauss, R, Stata
- Bayesian Econometrics, Causal Inference, A/B testing, Machine Learning

Work Experience

Economist - Intern — **Amazon** — **June 2023 - September 2023**
- Skills: Instrumental Variables, Machine Learning with Instrumental Variables, A/B testing, Causal Inference
- Programming Language: Python, R, SQL

Emerging IT Leaders — **IT Department, Purdue University** — **June 2016 – May 2018**
- High-performance computing (HPC) support: Communicated with Researchers about their research computing concerns and provided solutions
- Analyzed the HPC usage data and provided useful data visualizations using Python and Juptyter Notebook
- Used SQL to generate data tables based on researchers' requests

Research Experience

Research Projects — **University of California, Irvine** — **2020 - Present**
- **Beyesian Inference for Treatment effects with Heteroskedasticity** — **March 2022 - Present**
  Examine the impact of heteroskedasticity in some treatment model settings, including the regression discontinuity design, difference-in-differences method, and the potential outcome framework.
- **Bayesian Analysis of Drug and Mental Health Treatment Effects** — **May 2022 - Present**
  Propose a multivariate Bayesian treatment model with two binary treatments, mental health treatment and drug or alcohol treatment. This analysis will be conducted using 2018-2019 National Survey on Drug use and Health (NSDUH).
- **Bayesian Analysis of a Self-selection Model with Multiple Outcomes** — **February 2021-February 2022**
  Proposed a parametric self-selection Bayesian model with one binary treatment and two outcome variables. Applied the model to two datasets to study the impact of private insurance on healthcare expenditures and number of Physician office visits.
- **Product pricing with consumer learning** — **February 2020 - December 2020**
  Proposed a game theory model to study the impact of seller's reputation on their pricing strategy, and solved for the undefeated equilibrium. Separate equilibrium exists when the initial reputation level is low.

Course Projects — **University of California, Irvine** — **2019 - Present**
- **Electricity Smart Metering:** Used the dataset that contains the data collected in the electricity smart metering technology trials conducted in Ireland to predict the electricity consumption from residential households. Compared the results in three methods: decision tree, lasso regression, and neural network.
- **Quantile Treatment Effects with Sample Selection:** Examined the quantile treatment effects of the Job Corps program and provided bounds for the treatment effects on weekly wage earned four years after the random assignment.

Additional Experience and Awards

- Gender Diversity Award, Internet2 Global Summit, 2017
- Machine Learning Certification, Coursera, 2017