

Zhu Liang

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SUMMARY

Economics Ph.D. candidate specializing in empirical industrial organization and healthcare market analysis. Expert in using R and Python to manage large datasets and develop advanced econometric models. Committed to leveraging analytical skills to enhance strategic decision-making and operational efficiencies across consulting, technology, and other key industries.

EDUCATION

Ph.D. in Economics, STEM, Stony Brook University 2019 - 2025 (Expected)

Fields: Empirical IO, Health Economics, Product Design

Advanced Graduate Certificate in Data and Computational Science 2022 - 2023

Institute for Advanced Computational Science, Stony Brook University

- Gained proficiency in computer science foundations, including data structures and algorithms. Performed parallel computing projects on HPC clusters using C with MPI.
- Employed Python for data science tasks, integrating machine learning libraries like Scikit-learn. Developed a restaurant recommender webpage using NLP tools on Yelp feedback data.
- Honed communication skills to effectively explain technical projects to non-expert audiences.

M.S. in Economics, University of Wisconsin-Madison 2017 - 2019

EXPERIENCE

Job Market Paper

“Risk Adjustment, Self-Selection, and Plan Design in Medicare Advantage” - Accepted for ASSA 2025

- Employed MATLAB to implement a BLP style model that dissects the decision-making processes among consumers, firms, and government entities within the health insurance market.
- Analyzed consumer behavior under self-selection using a logit model of discrete choices, incorporating simulations of private information to identify heterogeneous factors that influence consumer preferences.
- Analyzed the supply side using a Nash-Bertrand competition framework to recover markups and assess optimal product designs, providing insights into trends in MA plan design and overpayment issues.
- Quantified the welfare impacts of current risk adjustment policies and consumer self-selection behaviors.

Research Assistant, Stony Brook University 2021 - 2023

- Conducted data cleaning and preprocessing on daily transaction data from a major online automotive marketplace using R data.table.
- Managed complex survey data from the Medicare Current Beneficiary Survey, integrating data across various subsections using Tidyverse to construct a detailed individual information database.

Teaching Assistant, Stony Brook University 2019 - 2024

- Conducted recitation classes for Empirical IO and Econometrics courses, focusing on problem-solving sessions and guiding students in the use of statistical software such as R and Stata.
- As Head TA, coordinated activities across multiple TA-led sessions, assigned tasks, and facilitated communication between instructors and TAs.

CERTIFICATIONS, SKILLS

GitHub Copilot, **GitHub Foundations**, GitHub 2024

Google Data Analytics Professional Certificate, Coursera 2022

Programming: R, MATLAB, Python, SQL, STATA, Excel, C, MPI, Copilot, Git, \LaTeX

Languages: English (Fluent), Mandarin (Native)