

Mo Liu

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Education

Sun Yat-Sen University, Lingnan College, Bachelor of Economics Sept. 2018 - Jun. 2022

- Overall GPA: 3.8/4.0

Duke University, Department of Economics, M.A. in Economics Aug. 2024 - now

- Current GPA: 3.78/4.0
- Coursework: Adv. Microeconomic Analysis, Economics of Education, Real Analysis, Topology

Research Experience

Measuring Teacher Effect Using CEPS Data Mar. 2025

Economics of Education Course Project, Instructor: Prof. Atila Abdulkadiroglu, atila.abdulkadiroglu@duke.edu

- Utilized the China Education Panel Survey (CEPS) to estimate teacher value-added effects on students' academic performance;
- Applied fixed-effects panel models to address endogeneity from non-random teacher assignment, and found that teacher quality differences account for 0.12–0.13 standard deviations in student test scores, consistent with findings on teacher value-added;
- Explored heterogeneity across tracking vs. non-tracking schools, suggesting that teacher assignment policies significantly mediate observed teacher effects.

College–Major Choice in the Gaokao Mechanism

Dec. 2024

Adv. Microeconomic Analysis Course Project, Instructor: Prof. Charles Becker, cbecker@econ.duke.edu

- Formulated a three-sided matching model to capture the simultaneous decision process of students over both colleges and majors in the Chinese Gaokao system;
- Demonstrated that a two-phase deferred acceptance algorithm could yield stable outcomes under separable preferences, and characterized conditions under which stability fails due to intra-group adjustments;
- Constructed theoretical examples showing how restricted proposals and intra-group reassignment introduce instability and reduce strategy-proofness, offering potential directions for mechanism design improvements.

An Analysis of Shenzhen Car Plates Allocation Mechanism and Price Forecasting

Dec. 2021 – Apr. 2022

Undergraduate thesis, Supervisor: Prof. Haifeng Nie

niehf@mail.sysu.edu.cn

- Established a Game Theory model for allocation mechanisms based on private value, derived a Bayesian Nash Equilibrium of the strategies for lottery participants and bidders, and conducted comparative static analysis to investigate how changes in external variables affect equilibrium;
- Evaluated equality and efficiency in allocation mechanisms, employing the Gini Coefficient to measure the probability in obtaining a car plate and social surplus to measure efficiency;
- Employed econometric (MLR, VAR, ARIMA) and machine learning (Random Forest) methods to model and forecast the minimum auction price, proving mutual Granger Causality between price and number of bidders.

Internship Experience

CITIC Securities, Analyst Intern, Investment Banking Division

May. 2022 – Jul. 2022

- Accessed the corporate accounts for verification of significant financial transactions, identified unclear transactions, and strengthened compliance checks for both legal entities and individuals;
- Identified the company's core competitiveness and explored decisive factors influencing a company's IPO, considering ownership structures (state-owned, private, foreign);
- Applied Wind Terminal to collect data, supported regional research report formulation, and verified economic data for comprehensive analysis.

Guangdong Statistics Bureau, Analyst Intern, Trade and Foreign Economics Branch

Jul. 2021 - Aug. 2021

- Conducted research on customs raw data and established a thorough understanding of the articulation between different statistical reports;
- Built a semi-automated tabulation system for customs data processing and standard form generation;
- Completed the July 2021 statistical newsletter, describing import-export, foreign trade, and economic conditions, highlighting trends and providing analytical insights.

Computer skills

Languages: Python, Stata, LaTeX, R, MATLAB