Hongbin (Elijah) Huang

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Education

Duke University   *2024–2026*

M.A. in Economics   GPA: **3.95**

Southwestern University of Finance and Economics, China (SWUFE)   *2020–2024*

Bachelor of Economics   GPA: **4.0** (**Ranking: 1/30**)

University of California, Berkeley   *Fall 2022*

Exchange Program   GPA: **3.9**

Research Interest

Industrial Organization; Behavioral Economics; Health Economics; Economics of Innovation

Selected Courses

- **Math courses:** Real Analysis (A+); Linear Algebra (A+); Probability (A+); Bayesian Statistics (A); Numerical Analysis (A); Multivariable Calculus I & II (A); Differential Equations (A-); Game Theory (A+); Stochastic Processes (A)

- **PhD courses: Core:** Econometrics I (A); Econometrics II (A-); Microeconomics I ($*$)
  Field: IO in Health Market (A); Decision Theory ($*$)

Research Experience

- **Master Thesis (Duke, Econ);**   Advisor: Prof. Philipp Sadowski   *Apr 2025 – present*
  "Desire to Win": Theory, Experimental Evidence, and Implication in Industrial Organization
  Consider a two-player game where each person's utility is composed of a monetary payoff plus a binary function indicating the winning state, that is, one player's payoff is higher than the other's. Prove the existence and non-existence of a pure-strategy Nash equilibrium, and find how it changes the mixed-strategy NE.

- **Research Assistant (Duke, Fuqua);**   Supervisor: Prof. Anqi Zhao   *May 2025 – present*
  Project on Instrumental Variable with fixed effect and clustered standard errors
  Sanity check for proof of lemma, proposition, and theorem. Write simulation code for the estimator proposed by the paper. Read and summarized papers on instrumental variables and the interpretation of LATE. Collected applied studies employing IV methods along with their replication packages.

- **Research Assistant (Duke, Fuqua);**   Supervisor: Prof. Ryan C. McDevitt   *May 2025 – present*
  Project on Private Equity Acquisition and Hospital Performance
  Use a fuzzy-matching algorithm to link the American Hospital Association data and the private-equity dataset. Disaggregate system-level entries into individual hospitals, then link the private-equity deals and CMS data to construct a hospital–year panel. Finally, apply a staggered DID approach to estimate the treatment effect.

- **Research Assistant (Duke, Fuqua);**   Supervisor: Prof. Daniel P. Gross   *Dec 2024 – Apr 2025*
  Project on Patent, R&D Funding, and Paper Citation
  Conducted large-scale data integration and analysis by merging and linking comprehensive datasets, including academic publications, global patent records, and government funding data. Performed exploratory data analysis, data visualization, and text analysis (e.g., title trends across decades). Summarized related literature.

- **Undergraduate Thesis (SWUFE);**   Advisor: Prof. Jianyu Yu   *May 2023 – May 2024*
  Threshold Effect of R&D Investment During Shock: Evidence from COVID-19
  Developed an R&D competition model and applied the panel threshold model to validate outcomes. Concluded that firms above a size threshold significantly increased R&D spending during shocks.

- **Research Assistant (SWUFE);**   Supervisor: Prof. Mengmeng Guo   *Mar 2023 – Jun 2024*
  The Impact of Early-Life Earthquake Exposure on Entrepreneurship
  Collected and merged household survey data with earthquake disaster data, scraped additional data for mechanism discussions using Python, visualized data by creating heatmaps in STATA, ran regressions, examined mechanisms, conducted heterogeneity analysis, and wrote the manuscript.

- **Independent Research Paper (UCB);**   Advisor: Prof. Benjamin Schoefer   *Aug 2022 – Dec 2022*
  The Asymmetric Effect of Gasoline Prices on Electric Vehicle Sales
  Analyzed monthly data to assess the relationship between gasoline prices and electric car sales. Employed the autoregressive distributed lag model to test Granger causality and asymmetric effects in multiple ways. Concluded that consumers respond more strongly to increases in gasoline prices compared to decreases.

- **International Mathematical Contest in Modeling;**   Team Leader   *Feb 2022*
  How Does Asteroid Mining Impact Global Inequality?
  Led a team of three to develop a game-theoretic model assessing country participation in asteroid mining. Analyzed historical macroeconomic data and conducted Monte Carlo simulations to estimate the impact on global inequality.

Scholarship & Awards

Merit-Based Tuition Scholarship, Highest (Duke University)	*2024–2026*
First-Class Academic Scholarship (SWUFE)	*2022–2023*
Undergraduate Research Scholarship (SWUFE)	*2023*
First-Prize in Applied Econometric Competition (SWUFE)	*2023*
First-Class Exchange Program Scholarship (SWUFE)	*2022*
Meritorious Winner (4% of teams) in International Mathematical Contest in Modeling (COMAP)	*2022*

Other Information

Technical Skills: R, Python, STATA, SQL, Mathematica, LaTeX

Languages: English (fluent), Mandarin (native)