Qihong Ruan

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Education

- **Ph.D. Economics**, Cornell University — August 2025
  Dissertation Title: "Essays on Financial Markets, Networks, and Technologies"
- **M.S. Economics** (Concentration in Econometrics), Xiamen University — 2019
- **B.A. Finance**, Sun Yat-sen University — 2016

Research

- **Retail Trading Network and Cross-Predictability in the US Equity Market**
  - Construct a directed network of securities in the US Equity market from lead-lag correlations in retail trading flows. The analysis integrates twelve distinct, large-scale datasets, including high-frequency millisecond-level NYSE TAQ, Nasdaq RTAT, CRSP, OptionMetrics, and over one billion news records from RavenPack.
  - The paper demonstrates that the average return of a stock's retail trading peers robustly predicts its future returns, generating an economically significant alpha of 15.88% annualized for a corresponding long-short strategy.
  - It provides a unified, microstructure-based explanation, identifying two persistent channels: price discovery (e.g., in "Buy the Dip" episodes) and systematic, buy-side liquidity provision by retail networks.

- **Perpetual Futures Contracts and Cryptocurrency Market Quality**
  Accepted at **American Finance Association (AFA) Annual Meeting, 2026**
- **Inflation Expectation and Cryptocurrency Investment**
  Accepted at **American Finance Association (AFA) Annual Meeting, 2026**
- **Using Vision Large Models to Understand Asset Returns**
  Accepted at **Chinese Financial Research Conference (AI in Finance Session, 5% acceptance rate), 2025**
- **Systemic Risk in Financial Network Under Strategic Attack**
  Cited in Cornell Convenes Whitepaper on Digital Assets, 2022
- **Intraday Pattern of Option Time Value and Pricing Efficiency**
  Journal of Applied Statistics and Management, 2021
- **Does Differentiated Dividend Tax Curb Speculation?**
  South China Journal of Economics, 2015

Technical Skills

- **Programming:** Python (pandas, NumPy, scikit-learn, PyTorch), R, SAS, Stata, SQL, Matlab, Mathematica, High-Performance Computing in Linux systems
- **Quantitative & Computational & AI Methods:** Econometrics, Causal Inference, Statistical Learning, Network Analysis, Computing-Intensive Methods, A/B Test, Blockchain Nodes Management and Analytics, Large Language Models, Computer Vision, Context Engineering, Agentic AI

Teaching Assistant Experience

- Econometrics and Statistics — Undergraduate, Fall 2024
- Introductory Macroeconomics — Undergraduate, 2020-2024
- Demystifying FinTech and Big Data — MBA, 2021
- Probability Theory (Best Teaching Assistant) — Undergraduate, 2018
- Advanced Econometrics — PhD-level, 2018
- Experimental Economics — Undergraduate, 2017
- Financial Markets — Undergraduate, 2016
- Public Finance — Undergraduate, 2015
- Econometrics — Undergraduate, 2014

Research Assistant Experience

- Papers code review and replication, American Economic Association, 2025
- Full-stack tasks in paper production and publication decision-making, 2021-2024
- Econometrics of Evaluation-Approximation-Maximization (EAM) algorithm, Spring 2021
- Large-scale data collections, analytics and computations, 2017-2019

Honors and Awards

- Cornell FinTech Initiative Fellow, Cornell University, 2023
- Emerging Market Institute Research Grant, Cornell University, 2022
- Distinction for Economics PhD Qualifying Exam, Cornell University, 2020
- Sage Fellowship, Cornell University, 2019-2025
- Outstanding Graduate, Xiamen University, 2019
- Best Research Thesis, Xiamen University, 2019
- Excellent Volunteer, Xiamen University, 2019
- Best Teaching Assistant, Xiamen University, 2018
- Outstanding Graduate, Sun Yat-sen University, 2016
- National Scholarship, Sun Yat-sen University, 2014

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