Jiaxi Li

(704) 677-9800 • lijiaxi1995@gmail.com • https://jiaxili1995.github.io/ • U.S. Permanent Resident

EDUCATION

University of North Carolina at Chapel Hill August 2021 – May 2027 (Expected)
Ph.D. in Economics, Financial Econometrics & Asset Pricing | GPA: 4.0/4.0
Relevant Courses: Advanced Econometrics, Time Series, Asset Pricing Series, Advanced Empirical Finance

University of Chicago September 2018 – August 2019
M.A. in Economics | GPA: 3.69/4.0

University of North Carolina at Chapel Hill August 2014 – May 2018
B.S. in Applied Mathematics & B.A. in Economics | GPA: 3.92/4.0, 3.90/4.0, minor in Statistics and Analytics

Financial Machine Learning Summer School, Yale University – Society of Financial Econometrics July 2025
Topics: Neural Networks, IPCA, Autoencoders

WORK EXPERIENCE

Amazon – *Ph.D. Economist Intern* June 2026 – August 2026
Finance, Macro, and Forecasting | Python, SQL, Bayesian Hierarchical Modeling

- Developed a long-term profit forecasting model for Private Brand Intelligence, reducing out-of-sample MAE by more than 10% relative to a static past-quarter profit benchmark using a Bayesian hierarchical framework with group-specific shrinkage and heavy-tailed errors.
- Queried, joined, and cleaned large-scale business datasets using SQL for downstream statistical modeling.
- Leveraged cloud computing in AWS SageMaker for large-scale model estimation and compared Bayesian forecasts against XGBoost, LightGBM, and Random Forest using out-of-sample metrics.
- Validated model robustness through backtesting and posterior predictive analysis; translated density forecasts into recovery probabilities to support product-selection decisions.

RESEARCH EXPERIENCE

Boosting Portfolio Performance with Missingness-Aware Deep Learning – *Ph.D. Job Market Paper*
Advisors: Eric Ghysels and Andrii Babii | R, Financial ML, Neural Networks, Portfolio Backtesting

- Developed a missingness-aware neural network to generate cross-sectional equity return signals from observed and imputed firm characteristics using a double-branch mid-fusion architecture.
- Improved out-of-sample return prediction across multiple imputation methods, raising R^2 from 0.96% to 1.07% in one specification relative to the non-imputation benchmark.
- Backtested top/bottom-decile long-short strategies (2002–2020) under equal-, value-, and tempered-value-weighted portfolio constructions with consistent performance gains across weighting schemes; one tempered-value-weighted portfolio achieved 19.16% annualized return and a 1.20 Sharpe ratio, versus 16.91% and 1.15 for the non-imputation ML benchmark.

A Tensor PCA Analysis on Intraday Returns – *Ph.D. Field Paper*
Advisors: Eric Ghysels and Andrii Babii | R, SQL, Intraday Data, Factor Models, Financial Econometrics

- Extracted and cleaned intraday equity-return datasets from TAQ using SQL and R.
- Estimated a low-rank factor model for intraday stock returns using the Tensor PCA method of Babii et al. (2022).
- Proposed a weighted Tensor PCA estimator to address bias from small samples, intraday heteroskedasticity, and high noise, with improvements demonstrated in simulations and real data.

Do ESG Shocks Affect Stock Prices? – *Master's Thesis in Economics*
Advisor: Eugene Fama | MATLAB, CRSP, ESG, Event Studies

- Matched CRSP daily returns with RepRisk ESG events and estimated cumulative abnormal returns using event studies with 30-day event windows.
- Found that ESG upgrades were associated with an average 0.78% cumulative abnormal return over the event window, while downgrades were associated with a -0.67% cumulative abnormal return.

TECHNICAL SKILLS

- Programming: Python, R, SQL, MATLAB
- Methods: Bayesian Modeling, Machine Learning, Neural Networks, Time Series, Financial Econometrics, Asset Pricing, Event Studies, Portfolio Backtesting