Lei Li

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Education

Stony Brook University | 2019 – 2025 (Expected)

Ph.D. in Economics (Focus: International Finance, Applied Macroeconomics)

Renmin University of China | 2013 – 2015

M.A. in Finance

Zhongnan University of Economics and Law | 2009 – 2013

B.A. in Finance

Work Experience

Portfolio Analyst (Buy Side), China Great Wall Securities Co Ltd, China | Dec 2014 – Apr 2018

- Analyzed and interpreted **large datasets** from multiple sources to select stocks and used **Monte Carlo Method** to predict future stock prices

- Analyzed and foretasted **financial and operating performance** of public companies by analyzing income statements, balance sheets and cashflow statement to give advice to portfolio construction

- Prepared and **presented** regular reports and presentations on portfolio performance, market updates, and investment recommendations to internal management team

- Coordinate with senior team members on the implementation of the **strategic asset allocation** plan, monitored **investment pipelines** and assisted on **risk management**

Research Experience

"Sovereign Debt crises and Structural Transformation" (Job Market Paper), 2021 - 2024

- Executed empirical analysis of sovereign risk and economic fundamentals in emerging markets using **panel logistic regression** and **machine learning algorithms** in Python and Stata

- Developed **bond pricing models** that incorporate long-term debt to assess default risk, computing the model using **taste shocks** and **discrete choice methods**

- Constructed a **dynamic recursive model** involving the government, banks, and firms, illustrating public and private equilibrium through banks' balance sheets and interest rates

- Solved, simulated, and calibrated dynamic models using Python and FORTRAN and **visualized** the results in MATLAB

- Utilized **parallelization** with OpenMP and MPI to enhance coding efficiency, executing codes on Linux and HPC clusters

"The Consequences of Financial Center Conditions for Emerging Market Sovereigns" with Gabriel Mihalache and Samuele Centorrino, 2020 - 2024

Presented at the SED 2022, Federal Board 2024, Federal Reserve Board-Cleveland 2024, Federal Reserve Board-Richmond 2024, Midwest Macro 2024 by coauthor.

- Applied **time series analysis** techniques, including SVAR, ARIMA, and Local Projection, to create empirical analyses in Stata and Python

- Conducted experiments and utilized models to evaluate the **impulse responses** of emerging market bonds to the **persistence of US monetary shocks**

- Constructed bond pricing models and estimated **real US interest rates** across various terms using multiple models

- Developed and mathematically formulated **economic propositions** to provide theoretical foundations

Other Experience

Course Instructor/TA, Stony Brook University, NY   Sep 2019 – Present

- Conveyed economic data, models and concepts to classes of 70 undergraduate students

- Coordinated with 14 Teaching Assistants and the course instructor to address and resolve inquiries and concerns from over 500 students

Research Assistant, Stony Brook University, NY   May 2021 – Dec 2022

- Solved and simulated dynamic models using different methods in Python, MATLAB, and FORTRAN

Skills

Programming Languages: Python, Stata, Eviews, Matlab, FORTRAN, R, Dynare, LaTeX

Scientific Computing: Dynamic Programming, Parallelization, OpenMP, MPI, Nonlinear Optimization

Data Science: SQL, Data Visualization, Econometrics, Time Series Analysis, Machine Learning, Casual Inference, Logistic Regression, Discrete Choice Modeling

Certificate, Qualification and Awards

Databases and SQL for Data Science, IBM, 2024

Machine Learning Specialization, Coursera, 2024

Graduate Student Fellowship, 2019 - Present

Futures Professional Qualification Certificate, China Futures Association, 2015

Securities Practitioner Qualification Certificate, Securities Association of China, 2014

The Second-Class Scholarship, Renmin University of China, 2014

The First-Class Scholarship, Zhongnan University of Economics and Law, 2013

Excellent Student Leader, Zhongnan University of Economics and Law, 2012

National Scholarship for Undergraduate Excellence, MOE of China, 2010, 2011, 2012

References

- **Gabriel Mihalache** (The Ohio State University), Assistant Professor, *mihalache@gmail.com*

- **Juan Carlos Conesa** (Stony Brook University), Professor, *juan.conesa@stonybrook.edu*

- **Marina Azzimonti** (Federal Reserve Bank of Richmond), Senior Economist and Research Advisor, *marina.azzimonti@gmail.com*