Xin Lu

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Education

Ph.D. in Economics, Stony Brook University, Stony Brook, NY — Expected May 2026
Fields: Applied Microeconomics, Labor economics, Health economics.
M.S. in Economics, Wuhan University, China — 2018
B.Econ. in Finance & **B.S. in Statistics (Dual Degree)**, Wuhan University, China — 2015

Technical Skills

Skills: Decision analytics, predictive and causal modeling, causal inference, simulation-based estimation, Bayesian inference, counterfactual analysis, multivariate statistics, panel/longitudinal data modeling, numerical optimization, model validation and sensitivity testing, reproducible data workflows, dynamic structural modeling.
Programming: Python, R, MATLAB, Stata, LaTeX.
Certificates: CFA Level I, **Advanced Graduate Certificate** in Data and Computational Science (SBU).

Research Experience

Education Cost and Study Effort in Family Decision-Making Process Considering Mental Health (JMP).

- Built a dynamic two-agent decision model of parent–child behavior under uncertainty and latent states.
- Implemented high-dimensional numerical integration (Gauss–Hermite quadrature) and simulation-based inference (GHK / Monte Carlo) to handle correlated uncertainties and discrete outcomes.
- Developed a scalable simulation-based estimation pipeline (likelihood optimization, latent-state inference, Bayesian belief updating) for partially observed longitudinal data.
- Delivered counterfactual and targeting analytics to quantify heterogeneous impacts of intervention strategies, supporting data-driven policy and resource allocation decisions.

Prevalence of Mental Illness and Supply of Medicaid-Funded Services in New York State, with *Prof.* Steven Stern and Hualong Diao. Working paper.

- Simulated the state-wide mental illness prevalence rate using demographic information.
- Implemented scenario-based policy simulations (with/without OBBBA) to evaluate funding cuts and quantify distributional impacts across counties.

Statistical Characteristics of K6 as an Explanatory Variable in the United States and China, with *Prof.* Steven Stern. Working paper.

- Assessed K6 as an explanatory variable for mental-health outcomes using probit models and robustness checks.
- Conducted a cross-country comparison using large-scale survey data from China (CFPS) and the U.S. (NHIS) to test consistency of estimated effects across settings.

Working Experience

Stony Brook University *Teaching Assistant / Recitation Instructor*

- Courses: ECO 321 (Econometrics; Fall 2025, Spring 2026), ECO 305 (Intermediate Micro; Fall 2021–Spring 2025), ECO 108 (Intro to Econ; Fall 2019–Fall 2023)
- **Classroom operations & coordination:** managed recitation and office-hour delivery, announcements, and exam proctoring to keep course execution on schedule for large sections.
- **Stakeholder communication:** served as a key point of contact between instructor, TA team, and students; resolved high-volume inquiries with clear, consistent messaging and timely follow-ups.
- **Process & fairness:** coordinated grading workflows and aligned standards across sections; provided structured feedback to support learning outcomes.

Stony Brook University *Instructor*

- ECO 360: Money and Banking (Summer 2025, Summer 2026)
- Led end-to-end course delivery: planned weekly content, delivered lectures, and maintained active classroom interaction.

Wuhan University, Economics and Management School

- Teaching Assistant for Macroeconomics (Sept. 2016 – Jan. 2017)

Selected Publications

Analysis on the determinants and peaking paths of CO_2 emissions in China's high energy-consuming industries. Systems Engineering, Mian Yang, **Xin Lu**, Hongbo Duan.
The influence of energy price distortion on Chinese energy efficiency. Mian Yang, **Xin Lu**, Fuxia Yang.