XIXIANG HU

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EDUCATION

Expected 12/23 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Coursework:*** stochastic calculus, XVA, fixed income derivatives, trading energy derivatives, capital and credit derivatives, time series analysis, derivatives pricing, interest rate model

09/21 - 09/22 **LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE (LSE)** London, UK
M.S. in Data Science
- ***Coursework:*** time series, SVM, random forest, XGBoost, lasso, ridge regression, Monte Carlo, principal component analysis, Q-learning, PySpark, distributed computing

09/17 - 06/21 **SOUTHWEST UNIVERSITY OF FINANCE AND ECONOMICS** Chengdu, China
B.S. in Computer Science
- ***Coursework:*** corporate finance, financial derivatives, Java, database, statistics, data structures, probability, algorithms, machine learning, linear algebra, Hadoop

EXPERIENCE

06/23 - 08/23 **ANZHI CAPITAL** Shanghai, China
Quantitative Research Intern (Python)
- Aggregated convertible bond strategies data with Python, calculating value and proportion for each bond, stock, and future; analyzed fund allocations across various industries
- Wrote fully functional backtesting program for new strategies, obtaining statistical indicators for certain periods and generating net value chart
- Studied HFT papers; used continuous Markov chain model, jointly modeling market order

07/21 - 09/21 **CAITONG SECURITIES** Chengdu, China
Internship (Python)
- Evaluated performance of diverse strategies across time; assessed economic and market conditions under which each strategy exhibited strong results
- Constructed forecasting model based on GARCH for returns; visualized portfolio data

PROJECTS

09/23 - present **NYU COURANT** New York, NY
Automatic Hedging Strategy for 1-month and 3-month Term-SOFR Reset-Risk (Python)
- Replicated the published Term-SOFR. Analyze tick-by-tick data to replicate Term-SOFR and use linear optimization to forecast optimal overnight SOFR rates
- Designed algorithm to autonomously hedge against Term-SOFR reset risk. Utilizing TWAP principles, adjusting weights dynamically across different time frames by historical trading volume; final hedging error should within +/- 0.15bps of CME's daily Term-SOFR rates

12/21 - 08/22 **LSE & SIEMENS ADVANTA CONSULTING** London, UK
Inventory Optimization (Python)
- Applied ARIMA and ARIMAX time series models and machine learning methods (Prophet, LSTM) to simulate and predict product order demand over forthcoming 3 months
- Constructed environment for inventory management process; used reinforcement learning methods, DQN and Dueling DQN, to establish optimal reorder points strategy

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java, R, C, SQL
Languages: English (fluent), Mandarin (native)
Honor & Certifications: 1st in LSE and IBM "Practitioner Challenge Competition," Passed FRM Exam, Part I