SIYI ZHU

(347) 688-1528 // siyizhu@nyu.edu // linkedin.com/in/siyi--zhu

EDUCATION

Expected 12/26 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance

- ***Expected Coursework:*** computing in finance, financial securities and modeling, risk and portfolio management, stochastic calculus, asset pricing, derivative market, machine learning

09/20 - 12/24 **MOUNT HOLYOKE COLLEGE** South Hadley, MA
B.A. in Mathematics and Economics

- ***Coursework:*** calculus, linear algebra, discrete mathematics, probability, real analysis, stochastic processes, number theory, abstract algebra, data structures (Java), statistics (R)

EXPERIENCE

06/24 – 08/24 **CHINA SECURITIES** Beijing, China
Quantitative Research Intern (Python)

- Developed volatility-linked position adjustment model using Python to optimize pricing, risk management, and performance of financial instruments and portfolios
- Calculated daily return lines for backtesting beta trend control strategies using CSI 500 and CSI 1000 datasets with Python, assessing impact of various market conditions on performance
- Analyzed protective put strategies for hedging downside risk in futures positions by purchasing put options, ensuring delta-neutral coverage to mitigate potential losses
- Designed hybrid quantitative trading strategy using Lasso Regression Model in Python, achieving 3.73% excess return during downturns and reducing market risk exposure by 31.75%

05/24 - 06/24 **MOUNT HOLYOKE COLLEGE** South Hadley, MA
Research Assistant (Netlogo, Python)

- Investigated spin-coated polymer films with NetLogo using modified versions of Triangular Growth Model on outside-in growth and dynamic color changes to simulate polymer dynamics
- Designed Color-Index & Color-Front Model to visualize growth phases of triangular polymer structures with dynamic color changes, bond formation, and polymer aging over time
- Developed image-based statistics of polymer using network theory and ML algorithm

06/23 - 08/23 **CINDA SECURITIES** Beijing, China
Research Analyst Intern

- Authored comprehensive market research on energy storage converters and virtual power plants, energy transformation policy trends, risks and market size to support investment strategies
- Presented comparative analyses of Chinese photovoltaic inverter industry and energy storage installations across global markets, leveraging regression models to forecast future performance

PROJECTS

07/22 - 08/22 **BROWN UNIVERSITY** Providence, RI (Remote)
Research on Minimum Covering Circle (MATLAB)

- Investigated optimal solutions to minimum covering circle problem using MATLAB, focusing on enhanced outcomes through convex optimization and Lagrangian duality techniques

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java, R, C/C++, Stata, LaTex, MATLAB, Bloomberg
Languages: English (fluent), Mandarin (native), French (basic), Korean (basic)
Certifications/Baruch Pre-MFE Programs: Advanced Calculus with Financial Engineering Applications (Distinction), Probability Theory for Financial Applications, Bloomberg Market Concepts & Finance Fundamentals
Activities: Teaching Assistant at Mount Holyoke College for Intro. to Proof Through Analysis, Mathematics & Statistics Department Liaison, Clarinet (Performance Level 1), Sailing (Assistant Coach Certificate), Ballet (RAD 6)