JIAMING 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

- ***Recent Coursework:*** object-oriented programming (Java), data-driven modeling (Python), stochastic calculus, risk modeling for securitized products, portfolio and risk management, Monte Carlo, CAPM, Hull-White model, trading energy derivatives
- ***Forthcoming Coursework:*** fixed income derivatives, time series analysis and statistical arbitrage, alternative data in finance, capital and credit derivatives, XVA

09/18 - 05/22 **NORTHEASTERN UNIVERSITY** Boston, MA
B.S. in Data Science & Mathematics

- ***Coursework:*** multivariate calculus, linear algebra, ODEs and PDEs, probability and statistics, stochastic processes, supervised machine learning, SQL, Black-Scholes and Greeks
- ***Honors/Awards:*** Cum Laude (Top 10% of class), Dean's List for 7 semesters

EXPERIENCE

06/23 - 08/23 **U-SHINE INVESTMENT GROUP** Shanghai, China
(Private fund specializing in fixed income, with $2.5B AUM)
Interest Rate Derivatives Analyst Intern (Python)

- Gained insight into several interest rate derivatives (T-bond futures, IRS) and explored corresponding trading tactics including calendar spread and basis trade strategies
- Analyzed structures of various interest rate snowball options; applied Hull-White model and Monte Carlo simulation for pricing; backtested returns under different market conditions
- Monitored changes in yield curve (e.g., bullish/bearish, flat/steep) and generated trading signals, enhancing traders' decision-making accuracy

08/21 - 12/21 **MOYI TECH** New York, NY
(FinTech firm that automates market research and data analysis)
Quantitative Research Intern (Python, Excel)

- Collected US energy industry data (e.g., market size, growth demand rate, policy support), interpreting 50 of latest industry papers and research reports
- Collaborated on risk management models and optimization algorithms development using Excel and Python, resulting in 13% overall portfolio variance reduction
- Performed backtesting, and simulated live trading on proposed strategies using Python; analyzed and reported statistical results (e.g., VaR, Sharpe ratio, drawdown, daily P&L)

PROJECTS

NYU COURANT New York, NY

02/23 - 05/23 **Enhanced Numerical Methods for Options with Barriers (Python)**

- Identified effective barriers and binomial lattice boundaries; optimized node value of actual boundaries using linear interpolation
- Performed node backtracking optimization; improved its convergence speed for deriving barrier option value by 10x

01/23 - 03/23 **Energy Futures Trading Strategies: Exploring Opportunities and Risks (Python, Excel)**

- Calculated daily P&L of long WTI and RBOB futures while rolling between nearest maturity contract and second closest one, according to CME expiration calendar
- Optimized carry and momentum strategies on WTI futures and evaluated parameter stability; achieved average annual return of >$750K per contract after fees deducted for 12-year period
- Created WTI-RBOB pair trading strategy, which doubled RoMDD compared to trading WTI futures alone, and increased Sharpe ratio by 30%

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python (NumPy, Pandas, SciPy, Scikit-learn, Matplotlib), Java, SQL, R, LaTeX
Software: PowerPoint, Excel, Tableau
Languages: English (fluent), Mandarin (native)
Activities: Discrete Structure Teaching Assistant at Northeastern University