RUMING LIU

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Education

Stevens Institute of Technology **Sep. 2022 –**
Doctor of Philosophy, Finance *Hoboken, NJ, U.S.A*

University of Southern California **Sep. 2019 – Jun. 2021**
Master of Science, Mathematical Finance *Los Angeles, CA, U.S.A*

Jiangxi University of Finance and Economics **Sep. 2015 – Jun. 2019**
Bachelor of Economics, Finance *Nanchang, Jiangxi, China*

University of California San Diego **Mar. 2018 – Jun. 2018**
Extension Program, Statistics *La Jolla, CA, U.S.A*

Work Experience

Moody's Analytics **Sep. 2021 – Sep. 2022**
Financial Engineer Client Service Specialist *San Francisco, CA, U.S.A*

- Provided thorough quantitative and conceptual solutions for default risk to clients.
- Supported on products RiskCalc, CreditEdge, RiskFrontier and MIS rating via web, application, and API.
- Worked on Moody's credit model (Probability of Default, Expected Default Frequency, Loss Given Default, Distance to Default, Implied Rating, G-Correlation, Credit Migration, Risk Contribution, etc.)

China Investment Securities **Dec. 2018 – Mar. 2019**
Derivatives Analyst *Shenzhen, Canton, China*

- Designed, built and maintained tools used in dynamic hedge program and derivative portfolio management.
- Assisted in developing option price forecasting model.
- Developed a detailed knowledge of volatility arbitrage and market maker trading strategy.
- Provided Front Office support for financial reporting and data mining.

China Merchants Bank **Dec. 2017 – Jan. 2018**
Financial Data Analyst *Shenzhen, Canton, China*

- Took part in Bitcoin market arbitrage analysis research, worked in trading strategy and algorithm part.
- Worked with other programmer in financial products classification project by machine learning technique.
- Involved in design, testing and implementation of new financial and managerial reports.
- Wrote and published regular and ad hoc macro-economy reports.

China International Trust and Investment Corporation **Jun. 2017 – Sep. 2017**
Stock Trading Assistant *Nanchang, Jiangxi, China*

- Under guidance, built algorithm for momentum and reversal trading strategy.
- Demonstrated projects while working effectively under pressure.ability to complete multiple.
- Assisted in creating Excel tools and models to help dealer systematize and improve their data visualization.
- Wrote and published regular and ad hoc macro-economy reports.

Projects and Researches

Spoofing in Bitcoin Order Book(Link) **Mar. 2025**
Pricing and Arbitrage Across 80 Cryptocurrency Exchanges (Link) **Mar. 2024**
Sentiment in the Cross Section of Cryptocurrency Returns (Link) **Dec. 2023**
Front-running Game in Blockchain (Link) **Dec. 2022**
Cointegration Method in Statistical Arbitrage (Link) **May. 2022**
A Possible Way to Search Pairs Trading Arbitrage (Link) **Oct. 2020**
Thoughts on the Internationalization of Chinese RMB (Link) **May. 2019**
More on homepage (Link)

Technical Skills

Experienced with Blockchain technology: Bitcoin, Ethereum and other blockchain protocols. Competent in Blockchain development (DApps) language Solidity, Brownie framework, Rust and Vyper. Good at using statistical tools such as Matlab, SPSS and R to conduct quantitative research. Familiar with statistical inference and machine learning by using Python. Skilled in API and web mining. Have experience in MySQL and data mining. Passed FRM examination Level I in 2017.