

RUMING LIU

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Education

Stevens Institute of Technology

Doctor of Philosophy, Finance

Sep. 2022 –

Hoboken, NJ, U.S.A

University of Southern California

Master of Science, Mathematical Finance

Sep. 2019 – Jun. 2021

Los Angeles, CA, U.S.A

Jiangxi University of Finance and Economics

Bachelor of Economics, Finance

Sep. 2015 – Jun. 2019

Nanchang, Jiangxi, China

University of California San Diego

Extension Program, Statistics

Mar. 2018 – Jun. 2018

La Jolla, CA, U.S.A

Work Experience

Moody's Analytics

Financial Engineer Client Service Specialist

Sep. 2021 – Sep. 2022

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

Derivatives Analyst

Dec. 2018 – Mar. 2019

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

Financial Data Analyst

Dec. 2017 – Jan. 2018

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

Stock Trading Assistant

Jun. 2017 – Sep. 2017

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

Sentiment in the Cross Section of Cryptocurrency Returns ([Link](#))

Dec. 2023

Cryptocurrency Arbitrage Across Exchanges ([Link](#))

Jan. 2024

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.