**RUMING LIU**

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**EDUCATION Stevens Institute of Technology** Hoboken, NJ

*Doctor of Philosophy, Finance*  *September 2022 –*

**University of Southern California** Los Angeles, CA

*Master of Science, Mathematical Finance*  *September 2019 – June 2021*

**Jiangxi University of Finance and Economics** Jiangxi, China

*Bachelor of Economics, Finance*  *September 2015 – June 2019*

**University of California San Diego** La Jolla, CA

*Extension Program, Statistics March 2018 – June 2018*

**WORK EXPERIENCE**

**Moody’s Analytics** San Francisco, CA

**Financial Engineer Client Service Specialist** *September 2021 – September 2022*

* Provided thorough quantitative and conceptual solutions for default risk to clients.
* Supported on products [RiskCalc](https://rafa.moodysanalytics.com/riskcalc), [CreditEdge,](https://www.creditedge.com/) [RiskFrontier](https://rafa.moodysanalytics.com/riskfrontier) and [MIS rating](https://www.moodys.com/researchandratings/research-type/ratings-news/-/00300E/00300E/-/-1/0/-/0/-/-/-/-1/-/-/-/en/global/pdf/-/rra) 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** Guangdong, China

**Derivatives Analyst** *December 2018 – March 2019*

* 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** Guangdong, China

**Financial Data Analyst** *December 2017 – January 2018*

* 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.

**PROJECT AND RESEARCH**

* *Sentiment in the Cross Section of Cryptocurrency Returns (*[*Link*](https://github.com/ronming1303/Ruming-Liu-PDF-Document/blob/main/121523%20Sentiment%20in%20the%20Cross%20Section%20of%20%20Cryptocurrency%20Returns.pdf)*)*
* *Cryptocurrency Arbitrage Across Exchanges*
* *Front-running Game in Blockchain (*[*Link*](https://github.com/ronming1303/Ruming-Liu-PDF-Document/blob/main/Front_running_Game_in_Blockchain.pdf)*)*
* *Cointegration Method in Statistical Arbitrage (*[*Link*](https://rumingliu.files.wordpress.com/2020/11/cointegration-method-of-pairs-trading.pdf)*)*
* *A Possible Way to Search Pairs Trading Arbitrage (*[*Link*](https://rumingliu.files.wordpress.com/2020/10/a-possible-way-to-search-pairs-trading-arbitrage-1.pdf)*)*
* *Thoughts on the Internationalization of Chinese RMB (*[*Link*](https://rumingliu.files.wordpress.com/2020/10/e58898e585a5e993ad0151819e8aebae69687e5ae9ae7a8bfe88bb1e69687.pdf)*)*

**ADDITIONAL INFORMATION**

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.