

# RUMING LIU

☎ +1 (571)-485-5233 ✉ [rumingliu1303@gmail.com](mailto:rumingliu1303@gmail.com) 🏠 <https://ronming1303.github.io>

## Education

---

<b>Stevens Institute of Technology</b> <i>Doctor of Philosophy, Finance (Research Topics: Cryptocurrency, Blockchain &amp; Quantitative Finance)</i>	<b>Sep. 2022 –</b> <i>Hoboken, NJ, U.S.A</i>
<b>University of Southern California</b> <i>Master of Science, Mathematical Finance</i>	<b>Sep. 2019 – Jun. 2021</b> <i>Los Angeles, CA, U.S.A</i>
<b>Jiangxi University of Finance and Economics</b> <i>Bachelor of Economics, Finance</i>	<b>Sep. 2015 – Jun. 2019</b> <i>Nanchang, Jiangxi, China</i>
<b>University of California San Diego</b> <i>Extension Program, Statistics</i>	<b>Mar. 2018 – Jun. 2018</b> <i>La Jolla, CA, U.S.A</i>

## Work Experience

---

<b>Moody's Analytics</b> <i>Financial Engineer Client Service Specialist</i>	<b>Sep. 2021 – Sep. 2022</b> <i>San Francisco, CA, U.S.A</i>
<ul style="list-style-type: none"><li>• Provided thorough quantitative and conceptual solutions for default risk to clients.</li><li>• Supported on products <a href="#">RiskCalc</a>, <a href="#">CreditEdge</a>, <a href="#">RiskFrontier</a> and <a href="#">MIS rating</a> via web, application, and API.</li><li>• 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.)</li></ul>	
<b>China Investment Securities</b> <i>Derivatives Analyst</i>	<b>Dec. 2018 – Mar. 2019</b> <i>Shenzhen, Canton, China</i>
<ul style="list-style-type: none"><li>• Designed, built and maintained tools used in dynamic hedge program and derivative portfolio management.</li><li>• Assisted in developing option price forecasting model.</li><li>• Developed a detailed knowledge of volatility arbitrage and market maker trading strategy.</li><li>• Provided Front Office support for financial reporting and data mining.</li></ul>	
<b>China Merchants Bank</b> <i>Financial Data Analyst</i>	<b>Dec. 2017 – Jan. 2018</b> <i>Shenzhen, Canton, China</i>
<ul style="list-style-type: none"><li>• Took part in Bitcoin market arbitrage analysis research, worked in trading strategy and algorithm part.</li><li>• Worked with other programmer in financial products classification project by machine learning technique.</li><li>• Involved in design, testing and implementation of new financial and managerial reports.</li><li>• Wrote and published regular and ad hoc macro-economy reports.</li></ul>	
<b>China International Trust and Investment Corporation</b> <i>Stock Trading Assistant</i>	<b>Jun. 2017 – Sep. 2017</b> <i>Nanchang, Jiangxi, China</i>
<ul style="list-style-type: none"><li>• Under guidance, built algorithm for momentum and reversal trading strategy.</li><li>• Demonstrated projects while working effectively under pressure.ability to complete multiple.</li><li>• Assisted in creating Excel tools and models to help dealer systematize and improve their data visualization.</li><li>• Wrote and published regular and ad hoc macro-economy reports.</li></ul>	

## Projects and Researches

---

<b>Flow-Induced Momentum in Mutual Funds: Evidence from Crypto Exposure</b>	<b>Apr. 2026</b>
<b>Attention Based Large Factor Model</b>	<b>Mar. 2026</b>
<b>The Impact of Spoofing on Bitcoin Market Microstructure</b> ( <a href="#">Link</a> )	<b>Mar. 2025</b>
<b>Price Discovery and Arbitrage across Cryptocurrency Exchanges</b> ( <a href="#">Link</a> )	<b>Mar. 2024</b>
<b>Sentiment in the Cross Section of Cryptocurrency Returns</b> ( <a href="#">Link</a> )	<b>Dec. 2023</b>
<b>Front-running Game in Blockchain</b> ( <a href="#">Link</a> )	<b>Dec. 2022</b>
<b>Cointegration Method in Statistical Arbitrage</b> ( <a href="#">Link</a> )	<b>May. 2022</b>
<b>A Possible Way to Search Pairs Trading Arbitrage</b> ( <a href="#">Link</a> )	<b>Oct. 2020</b>
<b>Thoughts on the Internationalization of Chinese RMB</b> ( <a href="#">Link</a> )	<b>May. 2019</b>
<b>More on homepage</b> ( <a href="#">Link</a> )	

## 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, SAS 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, MongoDB, PostgreSQL and data mining. Proficient in AI-assisted development tools including Claude Code and Codex. Experienced with LangGraph framework for building AI agent applications. Passed FRM examination Level I in 2017.