# **RUMING LIU**

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#### **EDUCATION**

**Stevens Institute of Technology** Hoboken, NJ Doctor of Philosophy, Business Administration 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 *September 2015 – June 2019* Bachelor of Economics, Finance 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, 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**

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.

#### **China International Trust and Investment Corporation**

Jiangxi, China

# **Stock Trading Assistant**

*June* 2017 – *September* 2017

- Under guidance, built algorithm for momentum and reversal trading strategy.
- Demonstrated ability to complete multiple projects while working effectively under pressure.
- Assisted in creating Excel tools and models to help dealer systematize and improve their data visualization.
- Developed a Python script tool to record and report end of day profit & loss.

#### **SCHOLARLY ACTIVITY**

#### **Curriculum Project and Research**

- Cointegration Method in Statistical Arbitrage (Link)
- A Possible Way to Search Pairs Trading Arbitrage (Link)
- Thoughts on the Internationalization of Chinese RMB (Link)

## **ADDITIONAL INFORMATION**

**Professional Skills:** 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. Good at Blockchain development language Solidity and Brownie framework. Have knowledge in API and web spider. Have experience in mySQL and data mining. Passed FRM examination Level I in 2017.