Shihan (Ricky) Guo

www.linkedin.com/in/shihanguoricky | (646) 338-6426 | shihan.guo@columbia.edu

EDUCATION

Columbia University, The Fu Foundation School of Engineering and Applied Science New York, NY

M.S. in Financial Engineering GPA: 3.83/4 Aug 2020 - Dec 2022 (Est.)

- **Courses:** Stochastic Models, Continuous Time Models, Monte Carlo, Machine Learning, Stats Analysis, Optimization
- **Activities:** Course Assistant of Finance & Structuring for Data Science (2021 Fall)

Renmin University of China, The School of Finance Beijing, CN

B.Econ. in Finance, B.S. in Applied Mathematics GPA: 3.87/4 Sep 2016 - Jun 2020

- **Courses:** Financial Engineering, Risk Management, Data Structure with Python, Time Series, Financial Econometrics
- **Awards:** Top 5% Merit-Based Scholarship(2017, 2019), Top 10% Merit-Based Scholarship(2018)

SKILLS

- **Programming Skills:** Python, Matlab, R, C++ , SQL, VBA, Eviews, Stata
- **Quantitative Skills:** Financial Modeling, CFA Level II Candidate, Machine Learning, Data Analysis

PROFESSIONAL EXPERIENCE

GF Securities, Equity & Derivatives Investment Department Guangzhou, CN

Option Quantitative Analyst Intern Nov 2020 - May 2021

- Designed and programmed back-test frameworks for daily and intraday level options strategies with Matlab
- Analyzed replications of variance swap in ETF markets; increased Sharpe Ratio from 0.59 to 1.22 with long/short strategy
- Evaluated options transaction slippage under various scenarios with Python; improved trading cost with improved strategy

Beijing TC Investment Management, Quantitative Analysis Department Beijing, CN

Equity Quantitative Analyst Intern Oct 2019 - Mar 2020

- Constructed CNE5 and CNE6 models; investigated decreasing explanatory power to China equity market and its reasons
- Integrated latest academic papers and research reports; developed technical factors and industry factors with Matlab

Jianghai Securities, Asset Management Department Beijing, CN

Equity Quantitative Analyst Intern May 2019 - Sep 2019

- Sought for short-term alphas in China equity market; summarized weekly alpha reports and presented to senior managers
- Collaborated with developers to upgrade back-test system in Python; decreased data loading time by more than 80%
- Automated and managed a data-updating module for downloading and cleaning minute-level stock, future and option data

ACTIVITIES

Citadel Invitational Datathon Jul 2021

- Performed data cleaning and collaborated with team members to work on feature engineering process in Python

PROJECT EXPERIENCE

Columbia University: Volatility-Volume-Based Order Slicing Mar 2021 - Apr 2021

- Analyzed patterns of price ranges for 10-yr German Bund futures under frequencist approach and Bayesian approach
- Back-tested the effect of varying parameters in Gamma priors on order execution slippage

Renmin University: Improvement of Market Risk Management Methods Apr 2019 - Jun 2019

- Cooperated with teammates to construct a strategy with Python to update possible loss based on tick-level order book data
- Led back-test to compare new strategy and common VaR methods in terms of protection rate and accuracy

Renmin University: Improvement of Portfolio Protection Strategies Mar 2019 - May 2019

- Improved original TIPP strategy by adding momentum effect and directed back-tests on JoinQuant with Python
- Investigated back-test data to visualize improvements in strategy max drawdown and volatility; presented project report