# **SIQI LIU**

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## **EDUCATION**

## Expected 12/26 NEW YORK UNIVERSITY

New York, NY

#### The Courant Institute of Mathematical Sciences

#### M.S. in Mathematics in Finance

• *Expected Coursework:* portfolio management, stochastic calculus, dynamic asset pricing, machine learning, algorithmic trading, scientific computing

#### 09/21 - 06/25 SHANGHAI JIAO TONG UNIVERSITY

Shanghai, China

## B.S. in Mathematics and Applied Mathematics, Minor in Accountancy

- *Coursework:* mathematical statistics, probability, stochastic process, time series analysis, mathematical finance, PDE, ODE, real analysis, C++, econometrics
- Honors/Awards: Outstanding Graduate (top 10%), Academic Excellence Scholarship (top 20%)

## **EXPERIENCE**

#### 10/24 - 12/24 GUOLIAN FUTURES

Shanghai, China

## **Quantitative Research Intern (Python)**

- Developed asset rotation strategies with Python, optimizing returns from stock index futures, treasury bond futures, and commodity futures based on financial indicators
- Created new timing indicators using PMI data and exchange rates to identify stagflation phases
- Built robust backtesting system that incorporated slippage and transaction costs
- Achieved backtested annual return of 19.9%, Sharpe ratio of 1.81, and max drawdown of 5%

#### 07/24 - 09/24 HENGTAI SECURITIES

Shanghai, China

## Quantitative Research Intern (Python, R)

- Constructed Barra CNE6 style factors and operated cross-sectional regressions to get factor return matrices and residual returns for performance analysis
- Analyzed quarterly performance of stock portfolios, deriving 5.8% factor returns
- Conducted regression analysis to evaluate effect of interest rate differentials on FX futures prices, finding that contracts with maturities over 6 months achieved higher R-squared values of 0.81
- Analyzed daily stock market data with technical indicators and communicated with senior traders

#### 01/24 - 03/24 ERNST & YOUNG HUA MING

Shanghai, China

#### **Audit Intern (Excel)**

- Conducted credit risk audits of bank loan portfolios for client Cathay United Bank, analyzing borrower financials and key risk indicators to evaluate loan quality
- Assessed risk of more than 80 wealth management products, identifying 4% as high risk

## **PROJECTS**

## 11/24 - 05/25 SHANGHAI JIAO TONG UNIVERSITY

Shanghai, China

#### Volatility-Managed Multi-Factor Strategy Research (Python)

- Incorporated realized, implied, and combined volatility measures to dynamically adjust factor exposures in multi-factor portfolio based on Fama-French five-factor model
- Analyzed relationship between different volatility measures and optimal factor exposures across different skewness and volatility regimes in Hong Kong market
- Demonstrated that combined volatility approach outperformed under varying market conditions, with Sharpe ratio of 1.91 and annualized alpha of 14.8%

### 09/23 - 12/23 Black-Scholes Option Pricing Model Research (Python)

Shanghai, China

• Solved Black-Scholes-Barenblatt equation with Python using forward and backward difference methods; achieved errors of less than 0.01% compared to solution from Black-Scholes model

## COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, C++, MATLAB, R, LaTeX, Origin

Languages: English (fluent), Mandarin (native)

Certification: Machine Learning from University of Washington on Coursera