Yingyao (Nora) Liu

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EDUCATION

Princeton University **Princeton, NJ**
Master in Finance Sep. 2024 – May 2026

- **Anticipated Courses:** Statistical Analysis of Financial Data, Deep Learning Theory, Asset Pricing, Derivatives and Currencies, Advanced Time Series Models, High Frequency Data Model and Analysis, etc.

The Chinese University of Hong Kong, Shenzhen **Shenzhen, China**
Bachelor of Business Administration, Financial Engineering Sep. 2020 – May 2024

- **GPA:** 3.88/4.00 **Rank:** 1/158
- **Courses:** Partial Differential Equations, Fixed Income Securities, Options and Futures, Stochastic Processes, Machine Learning, Optimization, Data Structures, Financial Data Analysis, etc.

PROFESSIONAL EXPERIENCE

SGD Capital Management Co., Ltd **Shenzhen, China**
Quantitative Research Intern Mar. 2024 – Aug. 2024

- Researched the timing for constructing strangle positions by analyzing the self-correlation of volatility with the Hurst Index and performing volatility filtering.
- Augmented a trend-following CTA trading strategy by adding dynamic option portfolios. Hedge risks and optimize potential profit based on reversal signals and volatility, improving the Sharpe ratio by 24%.
- Developed a multi-factor trading strategy for stock index futures. Identified and integrated key factors including momentum, term structure, and open interest dynamics, realizing an out-of-sample Sharpe ratio of 1.03.

ZADS Investment (Shenzhen) Co., Ltd **Shenzhen, China**
Quantitative Research Intern Jun. 2023 – Sep. 2023

- Developed an intraday trading strategy for CSI300 ETF with a 1.21 profit-loss ratio by predicting short-term price trends with momentum factors adjusted by order flow imbalance and volatility indicators extracted from high frequency data.
- Researched the intraday movements of stock index future basis, analyzed future pricing dynamics and market sentiment. Employed regression analysis to discern market sentiment through the interactions between the trends of basis and spot.
- Implemented a tick-level program designed to identify index ETF arbitrage opportunities from the creation and redemption mechanism, accounted for market frictions including bid-ask spreads, transaction fees and stock suspensions.

Shenzhen Ricequant Technology Co., Ltd. **Shenzhen, China**
Quantitative Research Intern Dec. 2022 – Mar. 2023

- Analyzed the relationship between investor behaviors and stock trading price-volume dynamics, developed multiple alpha factors with Information Coefficient (IC) over 0.06 and were accepted by the company's factor library.
- Collaborated with team members to integrate multiple factors linearly and assign weights using Markowitz's mean-variance model, yielding a multi-factor trading strategy with an annualized excess return of over 16%.

Ping An Bank Co., Ltd. **Shenzhen, China**
Data Analyst Intern Jun. 2022 – Aug. 2022

- Analyzed the statistical distribution of loan defaults, employing regression analysis, chi-square tests and correlation tests to evaluate the relationship between default amounts and client demographics, generated data-driven insights to inform the development of refined loan amount standards.
- Evaluated the profitability of diverse industries by examining the financial statements of enterprises and aggregating data by industry, provided data-driven support for investment decisions and loan offering standards.

PROJECT EXPERIENCE

Statistical Arbitrage Strategy on Cryptocurrencies Apr. 2024 – May 2024

- Conducted co-integration tests on cryptocurrencies and selected pairs with stationary spreads.
- Constructed arbitrage portfolios based on the preference relationships between pairs, realizing a Sharpe ratio of 1.29.

SKILLS & OTHERS

Programing Languages: Python, C++, R, Java, SQL, MATLAB, Stata
Languages: Mandarin (Native), Cantonese (Proficient), English (Toefl 114/120, with speaking 30/30)
Interests: Musicals, Bicycling, Cooking