YUHENG (FITZ) WANG

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EDUCATION

Expected 12/24 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Expected coursework:*** OOP and data structure, stochastic calculus, derivatives pricing, risk and portfolio management, linear regression, SVM, deep neural networks, numerical computing, optimization, algorithmic trading, market microstructure, arbitrage trading, time series analysis

08/18 - 06/22 **SOUTHEAST UNIVERSITY** Nanjing, China
B.Econ. in Financial Engineering
- ***Coursework:*** multivariable calculus, statistics and probability, stochastic process, linear algebra, ordinary and partial differential equations, Black-Scholes, database system, machine learning

EXPERIENCE

07/22 - 11/22 **KAFANG TECHNOLOGY** Shanghai, China
(Top-tier Chinese high-frequency prop trading firm)
Quantitative Research Intern – High Frequency Trading
- Constructed high-frequency factors based on volume and price data from limit order books; improved 2- and 5-second price dynamic predictions by 1% more than XGBoost benchmark
- Created data processing tools that received and cleaned backtesting system's tick-level daily exchange data; generated information about main contracts for all Chinese commodity exchanges

09/21 - 01/22 **CAUSIS INVESTMENT** Wuhan, China
(Commodity-trading-advisor hedge fund with $300M AUM)
Quantitative Research Intern – Commodity Trading Advisor
- Developed new trend trading strategy with volume-price data from steel and chemical future contracts; backtested strategy, resulting in 45% annualized return and Sharpe ratio of 2.1
- Have generated profit for portfolio, since January 2022, based on new trend trading strategy
- Built minute-level strategy based on whole commodities market; backtesting resulted in Sharpe ratio of 1.3

06/21 - 09/21 **HUATAI SECURITIES** Shanghai, China
Quantitative Research Intern – Stock Trading Strategy
- Predicted log-return on CSI 300 Financials constituent stocks using generative adversarial networks (GAN) with over 70% direction prediction and low RMSE
- Used Fama-MacBeth regression, PCA, and lasso to portfolio that mimicked 3 macro factors with major asset classes or Citic Industry Index constituent stocks
- Replicated index performance; selected stocks with more than 0.8 correlation compared to actual index return according to Citic High-Dividend Strategy Index compiling method

PROJECTS

SOUTHEAST UNIVERSITY Nanjing, China
01/22 - 11/22 **Valuation of Basket Options Under Stochastic Interest Rate and Volatility Smile**
- Developed analytical formula for pricing basket options with stochastic interest rate and volatility smile assumptions; results were consistent with those of Monte Carlo simulations

11/21 - 06/22 **First Passage Time (FPT) and Its Application in Finance**
- Deduced closed-form solution for FPT of one-dimension, time-homogeneous diffusion process
- Built commodity strategy by modeling asset price dynamics via exponential O-U (Ornstein–Uhlenbeck) process; attained annualized return of 25% and Sharpe ratio of 1.0

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, C++, MATLAB, SQL
Languages: English (fluent), Mandarin (native)
Certifications: Machine Learning A (UCLA Extension), Object-Oriented Data Structure in C++ (UIUC Coursera)