Yu Wang

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Education

- **University of South Florida** — Tampa, US
  Ph.D; Industrial and Management Systems Engineering — *Expected Enrollment: Sep 2024*
  Research interests: Deterministic Global Optimization, Optimal Decision Tree, Trustworthy Machine Learning
- **Shanghai Jiao Tong University** — Shanghai, CN
  BBA; Major in Business Data Science; Minor in Finance; — *Sep 2019 - Jun 2023*
  Courses: Management Science, Machine Learning, Artificial Intelligence, Natural Language Process, Reinforcement Learning.

Skills Summary

- **Languages**: Python, Julia, C++, MATLAB
- **Tools**: Docker, GIT, JIRA, Linux, Bash

Experience

- **Egret Quant** — Shanghai, CN
  Reinforcement Learning Researcher (Intern) — *Oct 2022 - Current*
  - **DRL for Portfolio Management**: Building end-to-end portfolio management strategies using deep reinforcement learning algorithms. Using State-Action embedding methods to solve the problems caused by the large number of possible states and actions.
  - **Forecasting Models**: Conducting research on enhancing the performance and robustness of deep learning models in predicting daily returns for A-share stocks.
  - **Alpha-Mining Framework**: Constructing and combining alpha factors using deep reinforcement learning to obtain a large number of factors with IC higher than 0.02.
- **Kafang Tech** — Shanghai, CN
  HFT Quantitative Researcher (Intern) — *Jul 2022 - Oct 2022*
  - **Volatility Prediction**: Constructing signals and models to predict high frequency volatility of commodity futures.
  - **High Frequency Market Making**: Research on high frequency market making strategies of commodity futures. Constructing simulator for maker orders and using reinforcement learning and deep learning models to get optimal actions.
- **Bright Ridge Investments** — Shanghai, CN
  HFT Quantitative Researcher (Intern) — *Jul 2021 – Jan 2022*
  - **Trading Signals**: Research and optimization of high frequency trading signals to improve the performance of high frequency signals in real trading.
  - ***Spoofing* Detection**: Build algorithms to detect and reject *Spoofing* transactions.
  - **Strategy Optimization**: Constructing and developing trading strategies, tracking the actual performance of strategies, and making improvements and optimizations.

Academic Projects

- **Deep Reinforcement Learning Based Quantitative Investment**: Developed trading strategies of China A-shares using deep reinforcement learning algorithms. Built a simulated market environment and comparing the performance of different DRL algorithms. (Sep '22)
- **Deep Learning Sequence Prediction and Decision-Making Methods in Quantitative Trading**: Reproduced temporal relational ranking model*(Feng F,2019)*. Implemented an end-to-end stock selection model, capturing time series information and stock interrelationships using LSTM and GNN. (Apr '21)
- **Research of Investment Strategies for Cryptocurrency**: Optimized portfolio of cryptocurrency and maximized the Sharpe ratio of the portfolio using the latest linear merged optimization method *(Tu and Zhou, 2011, JFE)*. (Oct '20)

Honors and Awards

- SJTU Mathematical Modeling Competition First Prize, Sep 2021
- MCM/ICM Honorable Mention, Apr 2021