Yu Wang

Email : yu.wang@outlook.my
Mobile : +86 13341602330/+1 9318055554
Linkedin: https://www.linkedin.com/in/yu-wang/
Github: https://github.com/ZedRover

EDUCATION

University of British Columbia — Vancouver, CA
MSc; Mathematics — *Sep 2024- Current*
Research interests: Deterministic Global Optimization, Optimal Decision Tree

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, Nix

EXPERIENCE

Cao Research Group — Remote
Research Assistant — *Jul 2023 - Current*
- **Optimization in Machine Learning**: Engaged in developing and refining optimization algorithms for machine learning applications. Focused on enhancing algorithmic efficiency and scalability in large data environments.
- **Data Analysis and Model Development**: Conducted comprehensive data analysis and developed predictive models to address complex challenges in various domains.

Egret Quant — Shanghai, CN
Reinforcement Learning Researcher (Intern) — *Oct 2022 - Mar 2024*
- **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 over 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