ZHANGYI (OLIVER) WANG

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EDUCATION

Expected 12/23 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance

- ***Coursework:*** object-oriented programming (Java), financial modeling, risk management, algorithmic trading, stochastic processes, Fama-French, Black-Scholes

08/18 - 05/22 **NEW YORK UNIVERSITY SHANGHAI** Shanghai, China
B.S. in Data Science, **B.A. in Economics**

- ***Coursework:*** deep learning, regression, causal inference, optimization, databases, linear algebra, multivariable calculus, probability and statistics
- ***Honors/Awards:*** Dean's List for Academic Year 2020, 2021; NYU Shanghai Excellence Award; Magna Cum Laude

EXPERIENCE

05/23 - 08/23 **HERMES CAPITAL ADVISORS** New York, NY
Quantitative Research Intern (Python, Linux)

- Constructed pipelines for capturing and preprocessing real-time millisecond order book depth, book diff, and aggregate trade data for crypto instruments using websocket and exchange APIs
- Examined ensemble methods based on deep reinforcement learning agents such as A2C, PPO, and RainbowDQN for medium-frequency crypto trading
- Updated environment for reinforcement learning with larger action spaces and trade matching mechanism for sending limited orders, reducing transaction costs by 0.2%

06/22 - 08/22 **TURING FUND MANAGEMENT** Shanghai, China
Quantitative Research Intern (Python)

- Replicated and examined different versions of AlphaNet (factor mining network) with Keras
- Conducted single-factor IC testing and multi-layer testing using the latest daily trading data
- Adjusted inner operators and layers of AlphaNet and improved rank IC by 1%

07/21 - 08/21 **INSTITUTE OF INTELLIGENT COMPUTING TECHNOLOGY, CAS** Suzhou, China
Financial Data Mining and Analysis Intern (Python, Stata)

- Collected sector index data and examined potential sector linkage and rotation patterns using Apriori algorithm for over 120 industries from 2014 to 2021
- Labeled data, extracted, and categorized information contained in financial news and reports for sentiment analysis; contributed to the development of industry mapping knowledge domain

PROJECTS

02/22 - 05/22 **NEW YORK UNIVERSITY SHANGHAI** Shanghai, China
Momentum Strategy with Deep Reinforcement Learning in Chinese Stock Market (Python)

- Implemented risk-adjusted momentum strategies using DDPG model, based on first open-source DRL framework, FinRL
- Conducted backtesting for automatic trading with SSE 50 constituent stock portfolio

10/21 - 12/21 **NEW YORK UNIVERSITY SHANGHAI** Shanghai, China
Online Air Ticket Reservation System (Python, MySQL, HTML)

- Constructed online air ticket reservation system enabling customers, booking agents, and staff to finish various tasks including viewing public info and buying tickets using Python and MySQL
- Designed web-based application for system, using Flask framework and HTML

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, Java, Linux, MySQL, Stata, Javascript
Languages: English (fluent); Mandarin (native)