Zoey (Ziyi) Xie

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EDUCATION

University of Michigan **Ann Arbor, MI**
M.S. in Quantitative Finance & Risk Management *Aug. 2021 - Dec. 2022*
- **Courses:** Computational Finance, Advanced Financial Mathematics, Stochastic Analysis, Applied Statistics

Nanjing University **Nanjing, China**
B.S. in Computer Science and Technology & B.Ec. in Financial Engineering *Sept. 2017 - June 2021*
- **GPA:** 4.51/5.00
- **Courses:** Data Mining, Artificial Intelligence, Operations Research, Fixed Income Securities, Structured Finance, Financial Risk Management

University of California **Davis, CA**
Exchange Program *Sept. 2019 - Dec. 2019*
- **GPA:** 4.00/4.00
- **Courses:** Applied Time Series Analysis, Differential Equations, Analysis of Economics Data.

WORK EXPERIENCE

Jiangsu Zhinuo Intelligent Technology Co., Ltd **Nanjing, China**
Intern, Technology Department *Jan. 2020 - June 2021*
- Involved in credit risk prediction for small and medium-sized enterprises, mainly responsible for analyzing time series data with Python; analyzed yield rate of products and identified key processes affecting yield rate with Random Forest and XGBoost.
- Used LSTM to predict upward trends in CSI 300 and designed back testing program.

Bank of Nanjing **Nanjing, China**
Intern, Digital Bank Management Department *July 2020 - Aug. 2020; March 2021 - May 2021*
- Participated in research and development project of an intelligent risk control system, responsible for database sorting, suspicious data screening and programming with SQL for off-site risk warning and monitoring model.
- Performed preliminary realized risk warning and monitoring for various business processes with Python.
- Analyzed credit card business, predicted customer default probability with Logistic Regression and XGBoost and evaluated the results.

Nanjing Sanbai Cloud Information Technology Co., Ltd **Nanjing, China**
Intern, Data Operating Center *Aug. 2019*
- Conducted data merging and data cleaning with Python to improve data quality on the base of collected vehicle insurance data.
- Built models based on XGBoost, lightGBM, gcForest and MLP, improved prediction accuracy from 0.58 to 0.73.

Huatai Futures **Nanjing, China**
Intern, Business Department *July 2019*
- **Structured Product Design:** Completed option hedging scheme of rebar; designed two-stage option scheme based on price and product requirements proposed by customer.
- **Option Pricing:** Participated in OTC option pricing: learned the peculiarities of China's futures market and priced the product with futures hedging cost simulation method.

RROJECT EXPERIENCE

Research on Dynamic Portfolio Management System Based on Deep Reinforcement Learning **Nanjing, China**
Nanjing University *Oct. 2018 - Dec. 2019*
- Built mathematical model by combining with financial frameworks and Markowitz model, converted model into deep reinforcement learning programming and used deterministic gradient strategy method to evaluate.
- Designed and implemented a user-friendly portfolio management website with Java.
- Conducted back-testing experiment in A-share market and compared empirical results of framework with published portfolio selection strategies.

Research on Influence Factors of Treasury Bond Futures Price and Trading Strategies **Nanjing, China**
Nanjing University *March 2019 - June 2019*
- Conducted Granger test using VECM model with impulse response function and variance decomposition to find out influence factors of treasury bond futures price with the daily closing price from 2015 to 2019.
- Discussed hedging principle and hedge ratios during practical application, conducted empirical analysis based on GARCH models; analyzed arbitrage space of treasury bond futures.
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SKILLS

Programming: MS Office, C++, Python, Matlab, Stata, Java, R, Latex, Eviews, SQL