Fangchen(Alexia) Yu

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EDUCATION BACKGROUND

Duke University, Pratt School of Engineering **Durham, NC USA**

Master of Engineering (M.Eng.), Financial Technology *2023/08-Present*

GPA: 3.81/4.00

Courses: Software Engineering, Data Wrangling and Visualization, Asset Pricing and Risk Management, Machine Learning

Central University of Finance and Economics, School of Finance **Beijing China**

Bachelor of Economics, Financial Engineering *09/2019-06/2023*

SKILLS

Quantitative Analysis & Modeling:

- Skilled in developing and deploying trading strategies based on comprehensive data analysis and backtesting in Python.
- Extensive experience in Python, particularly with libraries such as Pandas and NumPy for data manipulation, and Matplotlib and Plotly for data visualization.
- Familiar with machine learning techniques for predictive modeling and data-driven decision-making, enhancing data analysis capabilities and driving strategic insights.

Languages: Fluent in English and Chinese (Mandarin)

PROFESSIONAL EXPERIENCE

China Merchants Securities Co., Ltd., *Research Assistant (Fund Evaluation) in Research and Development Center* *05/2024-08/2024*

- Utilized Python and financial API to create a suite of user-friendly tools for clients, including the Brinson model and compound conditional fund screening, etc., significantly enhancing efficiency and transparency in fund analysis.
- Conducted research projects for clients such as fund companies, utilizing Python and Excel for data analysis and statistical reporting. Compiled reports to provide personalized fund allocation recommendations, such as thematic fund layout analysis and dividend fund market analysis.

Guosen Securities Co., Ltd., *Research Assistant (Strategy Team) in Research Institute* *02/2023-07/2023*

- Conducted macro strategy research, including the collection and analysis of macroeconomic data and mutual fund styles, and developed interactive Excel dashboards to present findings and deliver actionable insights for clients.

Yingda Asset Management Co., Ltd., *Intern of FOF Investment Department* *07/2022-02/2023*

- Replicated Asset Allocation Models, including the Markowitz Mean-variance Model, Risk Parity, and Black-Litterman Model in Python. Enhanced the Black-Litterman Model by integrating Markov Switching Model to reflect investor views and implemented the Merrill Lynch Investment Clock to determine the macroeconomic situation.
- Applied Deep Reinforcement Learning techniques to A-share investments, by using Deep Q-Network in the timing strategy.

CCB Fintech Co., Ltd., *Part-time Assistant of Intelligent Quantitative Team* *04/2022-07/2022*

- Replicated and implemented over 60 strategies in Python, ranging from micro stock strategies to macro asset allocation strategies. Conducted thorough back-testing and fine-tuned strategy parameters to optimize performance.
- Developed interactive web pages using Pywebio and Bokeh, facilitating the visualization of factor evaluation indicators.

ACADEMIC EXPERIENCE

National College Students Innovation and Entrepreneurship Training Program, *Member* *05/2021-06/2022*

Topic: Study on Quantitative Stock Selection with Ensemble Learning

Duties: Conducted Ensemble Learning on multiple machine learning models, including Support Vector Machine, AdaBoost, Random Forest, XGBoost, LightGBM, and CatBoost, with a focus on the real estate industry in China's A-share market to improve stock selection and enhance investment returns.

Software Engineering Course Project, *Team Leader* *01/2024-05/2024*

Topic: Web-based Stock Trading and Portfolio Analysis System

Duties: Led a team to create a stock simulation trading system using Flask. The website allowed users to browse the latest stock information, trade stocks, and analyze asset portfolios.