Huayu (Alaia) Zhu

5105 S. Harper Ave., Chicago, IL | 734-604-3628 | huayuz@uchicago.edu | www.linkedin.com/in/huayu-zhu

EDUCATION

The University of Chicago   **Chicago, IL**
Master of Science in Financial Mathematics (GPA: 3.90/4.00)   **Expected December 2024**
- Courses: Option Pricing, Numerical Methods, Multivariate Statistical Analysis, Quantitative Trading Strategy

The University of Michigan, Ann Arbor   **Ann Arbor, MI**
Bachelor of Science in Mathematics, Economics (GPA: 3.84/4.00)   **April 2023**
- Courses: Econometrics, Game Theory, Probability Theory, Differential Equations, Programming & Data Structures

SKILLS

Computing: Python, Jupyter, R, MATLAB, LaTeX, Stata, MS Office, C++, Linux, SQL
Knowledge: Financial Markets, Statistical Modeling, Data Analysis, Econometrics, Machine Learning

EXPERIENCES

Bodhi Research Group   **Chicago, IL**
Quantitative Researcher - University of Chicago Project Lab   **June 2024 – Present**
- Developed weighted performance metrics, including the omega function, leveraging clustering algorithms to identify emerging hedge fund managers with high portfolio returns and robust risk management

Neuberger Berman   **Chicago, IL**
Quantitative Researcher - University of Chicago Project Lab   **January 2024 – March 2024**
- Developed an automated pipeline to extract and summarize market analysis from economists and strategists
- Utilized prompt engineering techniques with LLMs and LangChain package to construct market and risk scenarios reports; presented all results and deliverables to Macro Research team for use throughout their research division

Holly Futures   **Nanjing, China**
Quantitative Analyst Intern   **May 2023 – August 2023**
- Backtested trading strategies, such as trend-following and arbitrage strategies, on Chinese commodity futures
- Conducted factor research on order books and financial reports to evaluate predictive power for price movements

Mashang Consumer Finance   **Hangzhou, China**
Quantitative Risk Management Intern   **May 2022 – August 2022**
- Worked on a data analytics project that aimed at predicting default risks in products focused on small-credit lending
- Applied Bayesian optimization on various boosting models, achieving a 0.78 ROC AUC score with LightGBM

Ping An Technology   **Shanghai, China**
Quantitative Analyst Intern   **June 2021 – August 2021**
- Enhanced a predictive model for insurance application assessments, reducing reliance on manual reviews
- Trained and validated an XGBoost model using cross-validation, achieving a 9% improvement in accuracy

RELEVANT PROJECTS

The University of Chicago   **Chicago, IL**
Dynamic Factors Selection Trading Strategy (FINM33150 Trading Strategy)   **January 2024 – March 2024**
- Constructed over 60 factors on S&P500 stocks, utilizing VIF, ICIR, and Lasso methods to optimize factor selection
- Leveraged ML models to predict equity returns, facilitating the development of a weekly quantile trading strategy

Enhancing Financial Market Forecasts and Strategies with MPDs (IAQF)   **January 2024 – March 2024**
- Calculated MPDs for financial products to forecast market trends, focusing on volatility and market reversals
- Employed multi-factor and spread trading strategies to assess MPDs's predictive power and empirical application

The University of Michigan, Ann Arbor   **Ann Arbor, MI**
Machine Learning with Piazza (EECS280 Programming & Data Structures)   **August 2022 – December 2022**
- Implemented a binary tree with recursive algorithms and map data structure with templates and comparators in C++
- Developed an NLP-driven program that automatically categorizes Piazza platform posts using a Multivariate Bernoulli Naive Bayes Classifier to predict labels based on text analytics

ADDITIONAL INFORMATION

Languages: Mandarin (native)
Interests: Waltham Group Volunteer (Elderly Companion Care), hiking, frisbee, pottery, bouldering