

Kaiwen DONG

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Education

University of Michigan

Ann Arbor, MI

M.S. in Quantitative Finance & Risk Management

September 2023 - December 2024 (*Expected*)

Sichuan University, School of Mathematics

Chengdu, China

B.S. in Mathematics

September 2018 - June 2023

- Core courses: *Probability Theory, Ordinary Differential Equation, Real Analysis, Python Programming, Data Structure, Algorithm Analysis, Options Futures and Derivatives*

Publications

- **Dong, K.**, Analysis of Financing Difficulties for SMEs--Based on the Perspective of Supply Chain Finance, *China Civil Entrepreneur*, 2018, No.61 01 145-146.
- SU, J, DONG K., GE, R., Research of Quantitative Trading Strategy Based on LSTM, *BCP Business & Management*, vol. 19, May 2022, pp. 577-584.

Internship Experiences

Market Researcher | Zhongjing Automatic Control Equipment Co., Ltd

October 2022 - June 2023

- Collected the company's past financial reports to create the company's profit model with the impact of market fluctuations.
- According to the model mentioned in the first bullet point based on the company's capacity data, investigated the company's potential customer groups and customer needs and increased their turnover by 30%.
- Applied the gold price model in my article, named *Research of Quantitative Trading Strategy Based on LSTM*, helped the company manage its assets, nearly \$10,000 and the company used the profits to increase the year-end bonus of employees.

Assistant to Business Manager | Central China Securities

June 2022 - October 2022

- Collected data of the companies' recent financial development and future financing direction of three industries (monocrystalline silicon manufacturing industry, semiconductor industry, optoelectronic industry) and prepared annual reports.
- Used Random Forest and Logistic Regression to detect false data and statements in 30 companies' financial reports; the model was tested by 122 listed companies' data, reached 94% similarity with human interpretation.

Assistant to Vice-President | China Securities Co., Ltd, Research Department

September 2021 - February 2022

- Participated in several financial due diligence projects, completed bank and supplier visits, sorted out 13 industrial and commercial information, costs and various expense schedules.
- Involved in the IPO project of the science and technology innovation enterprises in the medical equipment industry, wrote the industry reports, prepared the project due diligence papers, valued companies using DCF and other models.
- Wrote Corporate M&A Fund Analysis report based on medical device industry trends and value chain analysis.
- Conducted various equity analysis and set different investment strategies and risk-return functions for different income groups.

Research Experiences

Research Assistant | Quantile Regression in Finance, Sichuan University

September 2021 - June 2023

- Studied the application of quantile regression in the financial industry, with the main direction being value-at-risk (CoVaR).
- Provided mathematical proof processes, theoretical foundations, statistical properties, and Bayesian methods for posterior sampling based on Roger Conch's Quantile Regression Thesis

- Proposed a new FNC-1-based metric that changed the system ranking, and then proposed a novel and feature-rich Stack LSTM model based on the metric that could rival the well-established top system Convolutional Neural Networks and outperformed it at predicting minority categories such as price index forecasting.
- Analyzed the SWENI, the Athene and the UCL team's top SOLAT, studied these three models' working principle, deep learning method, and natural language processing method, and applied them in the fake news detection projection
- Tested a dataset of 10,000 news posts on Facebook using a Naive Bayes classifier (by BuzzFeed News results), resulted in a 74% accuracy rate through 5-fold-cross-validation, which had a significant improvement from 70% previously.

Skills

- Language: Chinese (Native), English (Fluent)
- Computer: JAVA, C/C++, Python, MATLAB, Excel