

Siqi Ma

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EDUCATION

Stanford University

Master of Science, Statistics-Data Science

Teaching Assistance at Institute of Computational Mathematics and Engineering department

Stanford, CA

Expected June 2025

University of Michigan

Bachelor of Science, Mathematics; Bachelor of Science, Economics; GPA 3.966/4.0

Ann Arbor, MI
August 2021 – April 2023

Relevant Coursework: Stochastic Process, Theoretical Statistics, Differential Equations, Game Theory, Econometrics, Complex Analysis

University of California, San Diego

Coursework toward Bachelor of Science, Mathematics, GPA 3.874/4.0

San Diego, CA

Sept 2019 – Jun 2021

Relevant Coursework: Probability, Numerical Linear Algebra, Mathematical Analysis, Graph theory, Regression Analysis

PROFESSIONAL EXPERIENCE

Everbright Securities Research Center

Financial Engineering Intern

Shanghai, China

June 2023 – Aug 2023

- Compared methodologies and return performances of 7 major climate and ESG indices, including MSCI, S&P500, FTSE, etc.
- Researched progress of recent ESG policies, including climate index market regulation in EU, TCFD and ISSB climate disclosure requirements, EU taxonomy acts; issue special reports regarding current policy change and investment suggestions.
- Establish NLP pipelines to process industry-specific sustainability reports, including finance, coal mining, and energy sectors; extract key indicators as described in reporting standards; generate close proxy measurements for missing data using models.

CHS Inc.

Data Scientist Intern, Business Intelligence Team on Supply Chain Planning

Minneapolis, MN

May 2022 – Dec 2022

- Developed stable algorithms to calculate barge velocity that is not prone to small errors; used velocity data to build Power BI reports on barge movement to visualize barge performance and build the foundation for future predictive planning database.
- Constructed time series and panel data forecasting models on supply chain data of over 3000 fertilizer products, providing pricing suggestions; reported sales and supply chain performance details in Power BI, allowing for better inventory planning.
- Built automated process to gather competitor's pricings to guide company product pricing, saving 15 minutes per day.

Baidu

Product Manager Intern, Intellectual Finance and Business Solutions Team

Beijing, China

May 2021 – Aug 2021

- Tested 31 functionalities of the company's risk management platform product and 15 quantitative investment models.
- Researched 4 empirical compilations of quantitative investment models to guide product development; proposed 3 additional functionalities to develop based on competitor research, facilitating further product differentiation and standardization.
- Led a team of four (including two senior computer engineers) to develop a smart short-distance-travel planning feature of the Baidu Map phone app during the employee's innovation challenge; present the product to the company's CEO in final round.

Qingdao Cooperative and Innovative Financial Research Institute

Assistant Financial Market Researcher

Qingdao, China

Aug 2020 – Oct 2020

- Performed research on random processes and their potential applications to financial markets; conducted literature reviews.
- Hosted two seminars on introduction to bonds and future investment principles for over 100 undergraduate students.
- Promoted the Fourth National Student Simulated Trading Competition through hosting information sessions and social media.

RESEARCH EXPERIENCE

UM LLEX lab: Natural Language Processing of Social Media data

Undergrad Research Assistant

Dec 2021 – Sept 2023

- Gathered and cleaned over 1 million Youtube video data regarding climate through multi-thread web scrapping using Python.
- Generated sentiment scores, media frame analysis results, and topic classifications of video comments using rule-based and BERT-based semi-supervised language models on video titles, descriptions, and comments; transform data into time series.
- Established a causal analysis framework on over 700,000 videos using metadata and metrics generated from NLP pipelines.

UM School of Environment and Sustainability, Meha's Lab: Climate Change and Crop Yield

Undergraduate Research Assistant

Sept 2021 – May 2022

- Analyze land cover change in Mexico and perform mapping analysis of corn production; investigated the relationship of corn production and weather indicators such as average, min, and max daily temperature, growth season precipitation, etc.
- Use GIS in conjunction with R to plot maps and process satellite images; apply time series analysis, plantation growth models, and machine learning frameworks on field and remote sensing data to analyze the effectiveness of sowing techniques.

LEADERSHIP EXPERIENCE

UM Quantitative Trading Strategy Development Project

Head of Algorithm and Strategy Team, Quantitative Investment Club

Sept 2021 – April 2023

- Cleaned and organized exchange data from Nasdaq firms by stock names; denoised data using Fourier transformation; calculated the six factors' values based on research result from Cornell University; constructed factor portfolio accordingly.
- Performed back-testing and improved different stages of the algorithm; investigated alternative data and option strategies.

ADDITIONAL INFORMATION

Technical Skills: Passed CFA Level I, Java, Python, R, bash, MATLAB, Mathematica, SQL, VBA, GIS, Unity Engine, Power BI, C#

Personal Interests: Game design and development, image processing using AI, writing novels, playing board games, hiking, table tennis