

Siqi Ma

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EDUCATION

University of Michigan

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

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

Ann Arbor, MI

Expected June 2023

University of California, San Diego

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

Honors and Awards: Provost honors for 6 quarters

Relevant Coursework: Probability, Discrete and Continuous Stochastic Processes, Statistical Methods, Data Analysis and

Inference, Numerical Linear Algebra, Mathematical Analysis, Object Oriented Programming, Graph theory, Regression Analysis

San Diego, CA

Sept 2019 – Jun 2021

PROFESSIONAL EXPERIENCE

CHS Inc.

Data Scientist Intern, Business Intelligence Team on Supply Chain Planning

Minneapolis, MN

May 2022 – Present

- Developed stable algorithm 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
- Constructed time series and panel data forecasting models on supply chain data of over 3000 fertilizer products and accurately reported performance and implementation details in Power BI, allowing for better inventory planning
- Built automated process to gather competitor's pricing 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 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 company product to facilitate further product development and standardization
- Led team of four (including two senior computer engineers) to develop smart short-distance-travel planning feature of the Baidu Map phone app during innovation challenge

Qingdao Cooperative and Innovative Financial Research Institute

Assistant Financial Market Researcher

Qingdao, China

Aug 2020 – Oct 2020

- Performed research on random processes and potential applications on 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 distributing flyers, attracting over 200 student participants

RESEARCH EXPERIENCE

UM LLEX lab: Natural Language Processing on Social Media

Undergrad Research Assistant

Dec 2021 – Present

- Gather and analyze over 1 million climate change related Youtube videos' data through web scrapping using Python and R
- Performed regression analysis on 150,000 weather event related videos' views, comment numbers, and sentiment score; perform rule-based sentiment analysis, topic modeling, and media frame analysis through various BERT models

UM School of Environment and Sustainability, Meha's Lab

Undergraduate Research Assistant

Sept 2021 – Present

- Analyze land cover change in Mexico and perform mapping analysis of corn production with Professor Meha Jain
- Use GIS in conjunction with R to plot maps; apply time series analysis, plantation growth models, and machine learning frameworks on field and remote sensing data to analyze the effectiveness of new sowing techniques

LEADERSHIP EXPERIENCE

UM Quantitative Trading Strategy Development Project

Head of Algorithm and Strategy Team, Quantitative Investment Club

Sept 2021 – Present

- Clean and organize exchange data from Nasdaq firms by stock names, denoise data using Fourier transformation, calculate popular six factors' value using various methods, and construct factor portfolio based on factor ranking
- Perform back-testing and improve different stages of algorithm; investigate alternative data and option strategies

UCSD Society of Actuaries Student Research Challenge 2020

Report Writer and Coder

Feb 2020 – Apr 2020

- Led team of four in data analysis, time series prediction models, and sector analysis to develop a pricing system for a hypothetical economy to achieve targeted emission reduction goal under targeted certainty
- Utilized LaTeX and R to compile a 41-pages report published as Official SOA publication; team received Global Third Prize, including \$500 for each team member and \$2,000 in university grants

ADDITIONAL INFORMATION

Technical Skills: Java, Python, R, bash, Matlab, Mathematica, SQL, Excel VBA, GIS, Unity Engine, Power BI

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