# Xinrui Han

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#### **EDUCATION**

#### **University of Michigan**

Master of Science in Quantitative Finance and Risk Management

University of Waterloo

**Bachelor of Mathematics** 

- Major: Mathematical Finance; Minor: Statistics
- Scholarship & Honor: President's Scholarship (top 10%, 2019); Dean's Honours List (Spring 2020)

#### **CERTIFICATES & SKILLS**

Professional Certificate: FRM Level I (05/2021); CFA Level I (02/2023) Computer Skill: C++; Python; Matlab; Racket; R; Microsoft

#### **INTERNSHIP**

#### Fullgoal Fund Co., Ltd.

#### **Retail Business Intern**

- Jun 2022 Aug 2022 Consolidated and cleansed the big data of company fund product information, generated lists and data frames for analysis, including product net value, rate of return, etc
- Used Wind and Choice databases to update the net value data of products under management daily
- Marketed Fullgoal Fund products, including fixed income, bond and so on, such as Fullgoal Yuli Bond, with sales of 4.25 million during the working period
- Filed 12 fund products marketing copywriting and operation reports, produced more than 100 product announcements

#### China Securities Co., Ltd.

#### Quantitative Intern

- Optimized an investment portfolio using Python and Excel to determine the optimal proportion of 5 assets
- Compared in-sample and out-of-sample differences and had quantitative research
- Determined optimal proportions for asset allocation by using financial data, such as Sharpe Ratio, to change constraints and applying the programming solver; the sharp ratio of the asset is 1.23.

#### Eastmoney Securities Co., Ltd.

#### Intern of Fund Research Team, Institutional Business Division

- Used Excel to perform data mining and statistical analysis, analyzed five factors which effect the stock price; evaluated industry fundamentals to write research reports
- Assisted with private equity due diligence and product allocation
- Operated the WeChat official account and posted daily articles on the latest market and research analyses
- Collaborated to compose five special research reports; independently completed one data research report and a series of introductory articles on overseas and domestic private asset managers, receiving over 40,000 page views

#### Ping An Property & Casualty Insurance Co., Ltd.

#### Intern of Company Remuneration, HR & Administrative Department

- Performed statistical modeling on the personnel of Shenzhen Branch to develop the visual data panel
- Developed an automatic program with Python to model the number of talents in the whole company.
- Awarded the Best Intern; engaged in organization and planning of the summer intern recruitment

# **PROJECT AND PUBLICATION**

#### **Stock Price Prediction Based on Data Analysis**

- Developed a stock price prediction system based on time series analysis and verified the performance Used machine learning platforms, such as Spark MLlib, and applied prediction models, including Moving Average, Linear regression, KNN, Auto-ARIMA, Prophet, and LSTM, to predict stock prices
- The Cultivation of Applied Financial Talents in the New Era of Finance
- Published in Science and Life, ISSN 1005-7056, Volume 22, 2021

### **ARIMAX Model, STAT443-Forecasting**

- Investigated the problem of irregular and nonperiodic data trends; identified one of the main factors affecting the predictability of time series and patterns was the nonlinear or irregular behavior of the data
- Constructed the ARIMAX model with 6 statistical hypotheses to deal with the irregular data
- Carried out data analysis and visualization; performed multiple regression analysis to validate results and presented them in graphs; analyzed actual data and made predictions using the ARIMAX model

# **ADDITIONAL INFORMATION**

Award: Certificate of Distinction

Ann Arbor, MI Sep 2023 – Dec 2024 (Expected) Waterloo, Canada Sept 2018 - Aug 2022

Shenzhen, China

Shenzhen, China

Beijing, China May 2022 - Jun 2022

Shanghai, China

Sept 2021 - Dec 2021

May 2021 - Aug 2021

Jun 2022- Jul 2022

# Dec 2021

Mar 2021