

EDUCATION

CORNELL UNIVERSITY**Master of Engineering in Financial Engineering**

NEW YORK, NY

Aug. 2021 – Dec. 2022

- GPA: 3.97/4.00
- Core Courses: Optimization in Finance, Quantitative Trading Strategies, Portfolio Management, OR Tools in Financial Engineering

THE CHINESE UNIVERSITY OF HONG KONG**Bachelor of Science in Risk Management Science**

HONG KONG

Sep. 2017 – May 2021

- GPA: 3.74/4.00, First Honor
- Awards: CUHK Best Essay Award – Silver (2018-19, 2019-20), Fintech Best Project Award (2021)
- Scholarships: Mrs. Ch'ien Mu Memorial Scholarship (Top 5%, 2019), Statistics Alumni Scholarship (Top 3%, 2020)
- Core Courses: Simulation in Finance and Risk Management, Machine Learning and Data Mining, Time Series, Statistical Inference, Database, Data Structure, Regression Analysis, Advanced Calculus

PROFESSIONAL EXPERIENCE

DIMENSIONAL FUND ADVISORS

AUSTIN, TX

Investment Solutions Intern

June 2022 – Aug. 2022

- Collected and manipulated data of countries' equity benchmark indices, currencies spot returns and related industrial sector spot returns on quarterly basis from internal and external databases, and automated Power Point production by Python to conduct equity market overview of developed and emerging countries based on Russell 3000 or MSCI for the institutional clients.
- Developed Python modules that use multi-variate time series and machine learning models to conduct anomaly detection in a novel way cross-sectionally and longitudinally out of 4,000 funds by studying the independent and relative performance of each fund based on past 3-year AUM, profitability and market-cap quarterly data. Flexibility is added by allowing subjective opinion posted at each state, thereby making the result more up-to-date.
- Along with the detection module, constructed a database connected to internal API which automatically update cleaned data quarterly, and a user interface with fund ticker(s) as input, and analysis results as output.

SHENWANHONGYUAN SECURITIES

SHANGHAI, CHINA

Quant Intern

July 2020 – Aug. 2020

- Implemented 20 single-factor stock selection models via Python and R, backtested the strategies and gave presentations on the past factor performance based on 2016-2020 A-share equity data.
- Improved the APM factor (constructed by comparing the difference in correlation between stock returns in the morning and afternoon) by subdividing the daily trading period into five intervals, thus emphasized the behavior of informed traders at the opening.
- Improve the Smart Money factor by fine-tuning the power of minute trading volume in construction, increased the information ratio by 0.1 and reduced the maximum drawdown by 2.7%.
- Applied technical analysis, such as trend line and wave theory, on A-share stocks in Pharmaceutical, Auto, and Material industries.

HUATAI SECURITIES

SHENZHEN, CHINA

Investment Assistant Intern (unpaid)

Aug. 2019

- Performed investment strategy research and risk preference survey on 5 private equity companies, prepared the materials for the Qianhai PE summit, and supported the signing process of strategic cooperation agreements.
- Examined the companies listed on the STAR board and conduct fundamental analysis of 8 biomedical firms by reviewing their annual reports, and supported the portfolio manager in the preparation of client investment reports.

PROJECTS

CORNELL UNIVERSITY

ITHACA, NY

A Novel Graph-based Factor Model of Markowitz Portfolio Optimization

Jan. 2022 – May 2022

- Studied the interactions among macroeconomics factors (consumer, market return, etc.), proposed a graph-based multi-factor structure of portfolios' covariance matrix prediction with multi-variate GARCH and implemented in Python.
- Constructed optimization based on the covariance constraints obtained from the proposed model, and performed empirical study over U.S. equities. The model outperforms benchmark models both pre- and post-pandemic.

THE CHINESE UNIVERSITY OF HONG KONG

HONG KONG

Credit Risk Analysis with Machine Learning

Jan. 2021 – May 2021

- Conducted credit risk analysis using 10 machine learning and deep learning models, formulated predictions for two credit risk datasets and recommended algorithms dealing with imbalanced huge datasets.
- Proposed improved algorithms including two-layer stacking and studied the impact of deeper fine-tuning.

SKILLS AND INTERESTS

Technical Skills: Python, R, SQL, Java, SAS, Proficient in MS Office (Excel VBA, Python-pptx)**Language Skills:** Chinese (native), English (fluent), Cantonese (fluent)**Interests:** Leader of postproduction team of CUHK Drama Society, piano (level 10 out of 10); figure skating