Mengyao Huang

1863 Lake Lila Lane, Ann Arbor, MI 48105| huangmy@umich.edu|(734)263-3205

EDUCATION

University of Michigan (UM) **Ann Arbor, MI**

M.S. in Quantitative Finance and Risk Management & Data Science Certificate Program GPA:3.6/4.0 *Sept.2017-May.2019*

- Courses: Numeric Methods in Finance, Financial Maths, Computational Finance, Financial Trading, Statistical Learning in Finance, Data Mining, AI Foundations, Machine Learning, Data Manipulation & Analysis, Marketing Science PhD Seminar

Dalian University of Technology (DUT) **Dalian, China**

B.S. in Mathematics and Applied Mathematics & B.S.in Finance GPA:3.6/4.0 *Sept.2013-Jun.2017*

Mathematical Modeling Training Certificate Program

- Courses: Stochastic Process, Optimization Method, Financial Mathematics, Time Series, Microeconomics, Financial Risk Management, Mathematical Modeling in Complex system Evolution & Game Theory
- Awards: First Prize in Mathematical Modeling Contest; Technological Innovation Scholarship
- Thesis: Prey-predator models affected by water resource (Submitted and Revised by Physical Review A)

PROFESSIONAL EXPERIENCE

BOHAI Securities Co., Ltd **Tianjin, China**

Researcher, Quantitative Trading Division *Jul.2016-Aug.2016*

- Contributed to prices' trend period estimation by introducing weighted Fourier Transform Algorithm
- Improved trading strategies and profitability of quantitative timing model algorithm by adopting year-on-year series, choosing optimal parameters like length of sub-sequences and judging the trend cycle of financial market

AXA Group, Hong Kong Branch **Hong Kong, China**

Assistant Analyst, Market Research Department *Jan.2016-Feb.2016*

- Contributed to stock-trading strategies based on MACD, KDJ, SAR, price-volume relationship and other indicators
- Used EVIEWS to analyze stability of time series, implemented both multivariate linear regression model and GARCH & ARCH model to predict Hang Seng Index

RESEARCH EXPERIENCE

Research Assistant, UM March.*2019-present*

Ross Business School,Corporate Strategy, Advisor: Michael Jensen

- Operated web scraping (IMDb, Wikipedia and etc) to collect film directors' information with Python Beautiful soup
- Carried data fusion project with Python pandas and used Nature Language Processing skills to analyze films' comments
- Plan to implement directors' features selection and give quantitative analysis for features' impact to films performance

Research Assistant, UM May.*2018-present*

Ross Business School, Marketing, Advisor: Fred M.Feinberg

- Operated Data Visualization for CRM database with ggplot
- Carried data fusion project (cleaning/K-1 conversion/clustering/dimension reduction) with Python Pandas
- Implemented K-means/K-modes algorithm and Multinomial Logit model (sklearn and mnlogit) in Python
- Learned EM/Random Forest/Causal Forest/Matching/Bayesian Mixture algorithm
- Used RSTAN to implement Gaussian Mixture, Multinomial Logit and Nested Logit model and cross validation test

Polynomial Optimization Approach Exploration in Principal-Agent Problem, UM *Nov.2017-Oct.2018*

Researcher, Department of Mathematics, Advisor: Nicolas Hernandez

- Realized Optimization Algorithm to solve PA problem with MATLAB and made some basic improvement

Optimal Model of Asset Liability Management based on Risk Control of Stock and Increment, DUT

Researcher, Department of Management and Economics *Nov.2015-Jun.2017*

- Combined kernel estimation, credit rating transition matrix, robust optimization concerning uncertainty of return's distribution (mixture and elliptical) & Worst CVAR to set up optimal models and Realized Monte Carlo simulation

Complex Ecosystem Evolution Model Construction, DUT

Researcher, Department of Innovation and Entrepreneurship *Mar.2015-May.2016*

- Considered influence of external factors on stability of ecosystem, adopted Partial Differential Equations, introduced Energy Distribution to measure the complexity and realized Monte Carlo computational simulation

SKILLS

Programming and data processing tools: Fluent in C++, Python, MATLAB and R; Familiar with SQL, STAN, Lingo and EVIEWS