Mengyao Huang

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EDUCATION

University of Michigan **Ann Arbor, MI**
M.S. in Quantitative Finance and Risk Management *Sept.2017-Present*
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*

- Courses: C/C++ Programming, R Programming, Stochastic Process, Optimization Method, Financial Mathematics, Time Series, Econometrics, Micro/Macroeconomics, Financial Risk Management
- Awards: First Prize in Mathematical Modeling Contest; Technological Innovation Scholarship
- Thesis: Prey-predator models affected by water resource (Revised and Accepted by Physical Review A)
  Optimal Model of Asset Liability Management based on Risk Control of Stock and Increment
  Dynamics of Organizational Routines----Evolutionary Theory of Economic Behaviors

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 subsequences 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*

- Selected stocks according to industries, balance sheets, cash flow statements and income statements
- 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

Optimal Model of Asset Liability Management based on Risk Control of Stock and Increment
Researcher, Department of Management and Economics *Nov.2015-present*

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

Quantitative Trading Research Laboratory, DUT
Researcher, Department of Mathematics & Department of Innovation and Entrepreneurship *Sept.2016-Jun.2017*

- Combined Macro factors like PMI index and Monetary factors to determine normal intervals of Futures' prices
- Considered mean reversion properties of stationary series and spread, chose optimal parameters, realized statistical arbitrage trading strategy and implemented simulation for risk analysis

Mathematical Modeling Training Program, DUT
Researcher, Department of Mathematics & Department of Innovation and Entrepreneurship *Sept.2013-Jun.2016*

- Learned models covering Ecosystem Evolution, Dissemination of Opinions and Public Goods Games
- Established Stochastic Diffusion models and realized Monte Carlo computational simulation

Complex Ecosystem Evolution Model Construction
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

SOCIAL ACTIVITIES

Mathematical Modeling Association, DUT
President *Sept.2015-Sept.2016*

- Set up publicity and technology committees, organized lectures on campus and recruited new members

SKILLS

Programming and data processing tools: MATLAB, R, C/C++, Python, Lingo, EVIEWS, Minitab
Communication: Native in Mandarin; Fluent in English