**Mengyao Huang**

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**EDUCATION**

**University of Michigan Ann Arbor, MI**

*M.S. in Quantitative Finance and Risk Management* *Sep.2017-Present*

**Dalian University of Technology Dalian, China**

*B.S. in Mathematics and Applied Mathematics & B.S.in Finance GPA:3.6/4.0 Sep.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 Contest in Northeastern China; Technological Innovation Scholarship

**WORKING PAPER**

**Complex Ecosystem Evolution Model Study and Construction (Accepted by Physical Review A)**

* Joint first authors, Advisor: Associate Prof. Qiuhui Pan

**Optimal Model of Asset Liability Management based on Risk Control of Stock and Increment (in progress)**

* Third author, Advisor: Prof. Guotai Chi

**PROFESSIONAL EXPERIENCE**

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

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

* Implemented trading strategies through MATLAB and C coding, verified the feasibility and improved models
* Improved the stability of algorithm in two research reports titled Weighted Fourier Algorithm for Long-term Forecasting & The Cycle and The Period of Financial Market
* Combined Fast Algorithm for DFS, ARMA model and Fourier functions to improve profitability of quantitative timing model algorithm

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

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

* Developed stock investment strategies, predicted Hang Seng Index and established basic hedge fund portfolio

**PROJECT EXPERIENCE**

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

*Researcher* Advisor: Prof. Guotai Chi, School of Management and Economics, DUT

* Realized simulation for risk measurement about CVAR calculation with MATLAB
* Analyzed credit rating transition matrix, robust optimization and Worst-CVAR

**Quantitative Trading Research Laboratory** *Sep.2016-Jun.2017*

*Researcher* Advisor: Yiwei Liu, School of Innovation and Entrepreneurship, DUT

* Reviewed arbitrage strategies of high-frequency futures on PhD thesis
* Picked strategies for implementation and made simulation risk trading analysis

**Mathematical Modeling Training Program** *Sep.2013-Jun.2016*

*Member & Researcher*

* 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 Study and Construction** *Mar.2015-May.2016*

*Researcher* Advisor: Associate Prof, Qiuhui Pan, School of Innovation and Entrepreneurship, DUT

* Raised energy accumulation formulas and partial differential equations to measure the complexity
* Analyzed data and realized Monte Carlo computational simulation using MATLAB & R language

**SOCIAL ACTIVITIES**

**DUT Mathematical Modeling Association Dalian, China**

*President Sep.2015-Sep.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