# **JASON ZHANG**

The Yard, Ann Arbor, MI (206) 939-1598 | jwzhang@umich.edu

### **EDUCATION**

#### **University of Michigan**

Master of Science in Quantitative Researcher and Risk Management Wuhan University

Master of Arts in Economics and Master of Science in Mathematics

- GPA (Economics): 3.87/4.0, GPA (Mathematics): 3.92/4.0, Overall Rank: 3/80
- $\triangleright$ Core Courses: Real Analysis, Complex Analysis and Differential Geometry, ODE, Dynamic Optimization, Probability Theory, Mathematical Statistics, Stochastic Process, Data Analysis, Econometrics, Time Series, Options, Futures and Other Derivatives

### **PROFESSIONAL EXPERIENCE**

### **China Galaxy Securities**

Quantitative Researcher at Fixed Income Department

- Researched effort of European style option to hedging costs effort of sellers in their exercising of power ahead of time based  $\geq$ on result through the underlying asset route by Monte Carlo Algorithm using MATLAB
- Tracked primary market and secondary market trading and researched the existing market's fixed income varieties and their pricing models
- Summarized framework of the account's daily position, trading process, and relevant jobs' content in market's buy-side and sell-side

#### Possible Negative Correlation between Idiosyncratic Risk and Stock Return in Chinese Market Wuhan University, China Feb. 2016 - Jul. 2016

### Research Assistant to Professor Sheng Wang

- Extracted and cleaned stock data, such as stock return, turnover rate, market capitalization in China, from RESSET and  $\triangleright$ CSMAR database of A-shares from October 1997 to December 2015
- Utilized GARCH model to estimate the idiosyncratic volatility and Fama-MacBeth regression to determine negative correlation between idiosyncratic risk and returns of stocks in the Chinese market using SAS
- Conducted portfolio analysis to verify that the negative correlation can be partly explained by turnover rate, represented heterogeneous beliefs among investors in market by SAS

# House Price and Gini Coefficient: The Case of Wealth Inequality in Wuhan

First Author

- Collected and processed time series data of house price, Gini coefficient, and relevant policies on real estate industry
- $\geq$ Conducted ADF test to examine unit root and applied vector autoregressive model to analyze dynamic relationship between house price and Gini coefficient
- $\geq$ Simulated dynamic effects of exogenous shocks of different policies on the relationship between house price and Gini coefficient, proposing possible policies on real estate industry to lessen wealth inequality

### **OTHER PROJECTS**

# **COMAP** | Mathematical Contest in Modeling

Team Leader | Dynamic Temperature Models for Water in Bathtub

- Established a model to determine optimal flow control through corner solution under circumstance of the specific temperature  $\triangleright$ range using MATLAB
- Modified the model to examine the graph of temperature field changes in different times to find an optimal flow control to maintain warm temperature throughout bathtub with least amount of water refilling

### **COMAP** | Mathematical Contest in Modeling

Team Leader | Models for Ebola's Controlling in Africa and Drugs Efficient Transmission

Self-studied S-I-R Model and modified model using MATLAB in accordance with actual requirement through index quantification, like viral transmission rate, to discover possible approaches that can control virus transmission

# **EXTRACURRICULAR EXPERIENCE**

# **Young Entrepreneur Club**

Team Leader

- Led a team to negotiate with businessmen in real industries to seek sponsorship for club's campus activities
- $\triangleright$ Collaborated with other departments' members to hold campus events that showcased the operation of successful companies

# ADDITIONAL SKILLS

Ann Arbor, MI Sept. 2018 – Dec.2019 Wuhan, China Sept. 2013 - Jun. 2017

Shanghai, China

Aug. 2017 – Oct. 2017

Wuhan University, China

Feb. 2016

Wuhan, China

Jan. 2014 - Jan. 2015

Wuhan University, China

Feb. 2017

Wuhan University, China Aug. 2015 – Jan. 2016