Guoqing Zhao

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EDUCATION

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

- **Courses:** Financial Mathematics, Stochastic Processes, Numerical Analysis, Statistics

Xi'an Jiaotong University Xi'an, China
B. S. in Mathematics and Applied Mathematics (Honors Science Program) Sept. 2013-Jun. 2017

- **Courses:** Numerical Analysis, Probability and Mathematical Statistics, Mathematical Finance, Stochastic Processes, Mathematical Programming, Data Analysis and Statistical Software (SAS). **GPA:** 84.86/100
- **Honor:** SIYUAN Merit Scholarship in 2017

Georgia Institute of Technology Atlanta, GA
Georgia Tech School of Mathematics Visiting Honors Student Program Jan. 2016-May 2016

- **Courses:** Probability and Statistics with Application, Information Theory. **GPA:** 4.0/4.0

PROJECT EXPERIENCE

Parameter Estimation of Quantile Regression for Longitudinal Data Feb. 2017-Jun. 2017

- Constructed several different weights in R to the loss function of nonlinear quantile regression
- Applied the induced smoothing method in R to smooth the original discontinuous estimating functions, and used the Newton-Raphson iteration algorithm to solve the estimating equations

Prediction of Stock Price Based on LSTM Model Jan. 2016-May. 2016

- Analyzed the impact of news and blogs on stock prices using sentiment analysis in python
- Applied LSTM network to determine the impact of historical data on share price
- Trained the stock price model with 5 years' historical data
- Evaluated the difference between the predicted stock price and real data and adjusted parameters to enhance the prediction accuracy

Prediction of China's Population Based on ARMA Model Jul. 2015-Sept. 2015

- Analyzed the station process of Chinese population data within 20 years in Eviews
- Tested stationary data with white noise and calculated ACF and PACF
- Built model with ARMA to predict the Chinese population in coming years. The error of the model was within one in a million

SKILLS

Programming Languages: MATLAB, SAS, Python, R, C++.
Communication: Mandarin - Native speaker, English - Fluent.