

# Guoqing Zhao

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## EDUCATION

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**University of Michigan** MI, USA  
M. S. in Quantitative Finance and Risk Management Sept. 2017-Now

- **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* Scholarship in 2017

**Georgia Institute of Technology** GA, USA  
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

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**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 discontinues 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 using sentiment analysis on stock price 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

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