

ZHILIAO HUANG

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EDUCATION

University of Michigan, Rackham Graduate School

Graduate Student, M.S. in Applied Statistics

Ann Arbor, USA

Expected Apr. 2019

- **Academic:** GPA: 3.9/4.0

Nankai University, School of Mathematical Science

B.S. in Mathematics and Applied Mathematics

Tianjin, China

Jul. 2017

- **Academic:** GPA: 3.5/4.0
- **Honors:** "Gongneng" Scholarship, 2014&2015

WORK EXPERIENCE

Liberty Mutual Insurance Group

Data Science Intern

Boston, USA

Jun. 2018 - Aug. 2018

Project: Impact of Underwriter Touch on Sales

- Developed observational study on the value of underwriter touch for the sales of business insurance policies
- Conducted predictive modeling with glm, and causal inference with propensity score matching
- Estimated the value of touch that may increase 10k in sales and \$1.5M in premium each year

Mobvoi Inc.

Sales Data Analyst Intern

Beijing, China

Feb. 2017 - Jun. 2017

- Conducted daily analysis on sales data, including sales trend prediction with linear model and sku correlation analysis
- Developed data visualization report platform with *R markdown (plotly)* and *Shiny* for CEO office
- Constructed VBA tools of data organization for sales team

Munich Re Group Beijing Branch

Actuary and Data Analyst Intern

Beijing, China

Jun. 2016 - Oct. 2016

Project: Motor Risk Prediction through Telematics Data Mining

- Developed innovative risk prediction models through motor telematics data mining (1 million records)
- Conducted data extraction with web-crawling, data analysis with one-way analysis, undersampling method, generalized linear model under *R* and *VBA*
- Accomplished the first applicable big data Vehicle Usage-Based Insurance product in Asia-Pacific

RESEARCH EXPERIENCE

Unsupervised Feature Selection with Unknown Noise and Missing Data

Research Assistant

Aug. 2016 - Apr. 2017

Tianjin, China

Adviser: Pengfei Zhu, Associate Professor, Lab of Machine Learning and Data Mining, Tianjin University

- Adopted Mixture of Gaussian for unknown noise, sparse method for feature selection and Damped Newton for optimization
- Conducted algorithm evaluation under *Matlab* with facial recognition and feature extraction tasks
- Accomplished the basic goal of the algorithm and achieved outstanding performance

Investigation into Optimization Methods and Performance Evaluation

Research Assistant

Mar. 2016 - Jun. 2016

Tianjin, China

Adviser: Xianming Xu, Lecturer, School of Mathematical Science, Nankai University

- Tested and compared popular optimization methods, including Newton and its derivative modifications
- Improved computational speed with Horner's Method and Broyden's Method
- Conducted convergence and computational speed comparisons under different conditions with *Matlab*

Harbin Institute of Technology, School of Mathematical Science

International Summer School of Mathematics

Harbin, China

Jul. 2015

Adviser: Jianqing Fan, ORFE, Princeton University; Stanley Osher, IPAM, UCLA

- Coursework: Sparse High-Dimensional Statistical Learning (Penalized Least-Squares, Matrix Completion, etc.)

EXTRACURRICULAR ACTIVITIES

Davos Foreign Guests Dept., 2014 Summer Davos Economic Forum

Volunteer Team Leader

Tianjin, China

Sept. 2014

- Supervised team performance and scheduled duty roster

COMPUTER SKILLS AND OTHERS

Programming Skills: C++, Python, R, Matlab, Stata, SAS, SQL, Hadoop, Microsoft Office and VBA, Linux, \LaTeX

Language: Mandarin(native), English(fluent), TOEFL(112/120, speaking 27/30), GRE(V152+Q169+AW4.0)