Quan Zhang

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EDUCATION

McCombs School of Business, the University of Texas at Austin, Austin, TX

Ph.D candidate, August 2015 – May 2020 (expected)

Department of Information, Risk and Operations Management

• Advisor: Mingyuan Zhou, Ph.D

The University of Minnesota, Twin Cities, Minneapolis, MN

Master of Science (Ph.D. study), Biostatistics, May 2015

- Thesis: Design and Analysis of Crossover Clinical Trials Using Bayesian Methods
- Advisor: Bradley P. Carlin, Ph.D

Peking University, Beijing, China

Bachelor of Biological Science and Economics (Double Major), July 2012

- Thesis: Organelles Distance from a Pathway Perspective (bioinformatics)
- Advisor: Hong Qu, Ph.D

RESEARCH Interest Methodology

• Statistics, machine learning, interpretable learning, Bayesian methods, variational inference, generative adversarial models

Application

- Survival analysis, classification, discrete choice models, missing data imputation, regression (for skewed and heterogeneous data), big data
- Online Finance (particularly crowdfunding), bioinformatics, medical data analysis, clinical trial

RESEARCH EXPERIENCE Research Assistant, McCombs School of Business, University of Texas at Austin

• Statistics, interpretable machine learning, variational inference Supervisor: Mingyuan Zhou, Ph.D September 2015 – present

Ph.D research intern, Google, LLC., Mountain View, CA

- Missing data imputation using variational autoencoders
- Forecasting famines in Africa, collaborated with the World Bank Supervisor: Dekun Zou, Ph.D and Joseph Xu, Ph.D January 2019 – March 2019

Research Assistant, Division of Biostatistics, University of Minnesota

- Design and analysis of crossover clinical trials using Bayesian methods
 Supervisor: Bradley P. Carlin, Ph.D
 September 2013 August 2014
- Big data analysis of HIV gene expression
 Supervisor: Cavan S. Reilly, Ph.D
 September 2012 May 2013

Refereed Publications

- Quan Zhang and Mingyuan Zhou, "Nonparametric Bayesian Lomax Delegate Racing for Survival Analysis with Competing Risks." Advances in Neural Information Processing Systems (AKA NeurIPS) (2018).
- 2. Quan Zhang and Mingyuan Zhou, "Permuted and Augmented Stick-Breaking Bayesian Multinomial Regression." *Journal of Machine Learning Research* (2018): Vol. 18(204) 1-33.
- Quan Zhang, Youssef Toubouti and Bradley Carlin, "Design and analysis of Bayesian adaptive crossover trials for evaluating contact lens safety and efficacy." Statistical Methods in Medical Research 26.3 (2017): 1216-1236.

WORKING PAPERS

- 1. Quan Zhang and Mingyuan Zhou, "Improving Variational Inference by Adaversarial Learning and Reparameterizable Updating Equations."
- 2. Quan Zhang, Qiang Gao, Mingfeng Lin and Mingyuan Zhou, "Weibull Racing Survival Models and Online Peer-to-Peer Lending."

Working in Progress

- 1. "Lomax Delegate Racing Hierarchical Classification."
- 2. "Regenerative and Augmented Missing Value Imputation."
- 3. "Hierarchical Dependent Modal and Distributional Regression."

TEACHING EXPERIENCES

- 1. Teaching assistant for undergraduate business statistics, UT Austin, 2015 present.
- 2. Teaching assistant for graduate mathematical statistics, UT Austin, 2018.
- 3. Teaching assistant for graduate Bayesian machine learning, UT Austin, 2018.
- 4. Teaching assistant for graduate linear models, the University of Minnesota, 2014.

COMPUTING SKILLS

Python, R, C, PyTorch, TensorFlow, Rcpp.

SERVICE ACTIVITIES

Reviewer of Neural Information Processing Systems (NeurIPS), 2016-present Reviewer of International Conference of Machine Learning (ICML), 2017-present

AWARDS

Graduate Continuing Bruton Fellowship for 2019-2020 academic year, UT Austin. McCombs Graduate Continuing Fellowship for 2019-2020 academic year, UT Austin. University of Texas at Austin Graduate School Summer 2019 Fellowship, UT Austin. 2012 School of Public Health Dean's Scholarship, the University of Minnesota. All-round Excellent Student for academic year 2010-2011, Peking University. Sumitomo Corporation Scholarship for academic year 2009-2010, Peking University. All-round Excellent Student for academic year 2008-2009, Peking University.

References

Mingyuan Zhou

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Stathis Tompaidis

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Qiang Gao

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