XU ZHANG

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EDUCATION

Temple University, Philadelphia, PA — Aug. 2015 – Expected 2021
Ph.D. Candidate, Department of Statistics

New Jersey Institute of Technology, Newark, NJ — Jan. 2013 – Jan. 2015
Master of Science in Applied Statistics

Xiamen University, Xiamen, China — Sept. 2008 – Jun. 2012
Bachelor of Science in Mathematics and Applied Mathematics

RESEARCH EXPERIENCE

Temple University, Philadelphia, PA

Project: Design of experiment for social network analysis with interference

- Developed experimental designs for detecting network interference in randomized experiments.
- Proposed methods to estimate causal effects in social network when network interference exists.

Project: Ensemble learning for high dimensional data analysis

- Proposed a novel ensemble learning model with Random Projection to make predictions of high dimensional data for regression and classification problems.
- Developed theoretical results of proposed model for classification and regression problems of high dimensional data.
- Demonstrated performance of proposed model on UCI machine learning benchmark data sets. Proposed models significantly improved computational efficiency, compared with state-of-the-art ensemble learning methods, significantly reduced average computational time by 70%, highly improve performance of ensemble learning on solving real-world high dimensional data problems.

Kaggle Machine Learning Competition Projects (Python, Pytorch, R)

Project: Google Landmark Recognition Challenge (CVPR'18 Recognition Challenge) — Oct. 2018

- Collaborated with two teammates, performed transfer learning with state of art Convolutional Neural Network on the training set with more than 1 million images and 14k landmark labels using PyTorch.
- Constructed Deep Residual Networks, ResNet18 and ResNet50 to predict landmark labels of images with fine parameters tuning, obtained an accuracy of 62% on test set, with team ranking top 10%.
- Improved the performances of two Deep Residual Networks models on test dataset, improved prediction accuracy of test dataset by 12%.

New Jersey Institute of Technology, Newark, NJ

Project: Longitudinal microarray analysis of uterine leiomyoma

- Proposed gene selection methods to find true fibroid genes from 52 leiomyoma and 8 normal myometrial samples.
- Analyzed longitudinal uterine leiomyoma data (9516 genes, and 60 samples) and validated gene selection approaches.
- Optimized the algorithm to improve efficiency of gene selection process. The proposed algorithm improved

selection accuracy of fibroid genes by 37%.

WORK EXPERIENCE

Temple University, Philadelphia, PA

Instructor, Research assistant, Teaching Assistant

- Stat 1001 Quant Methods for Business I, primary instructor, Summer 2018.
- Stat 2522 Survey Design and Sampling, teaching assistant, Spring 2018.
- Stat 2103 Statistical Business Analytics, teaching assistant, Fall 2015, Spring 2016, Fall 2017.
- Stat 8112 Statistical Methods for Business Research I, teaching assistant, Fall 2016.

SKILLS

Programming: Python, R, PyTorch, Matlab, SAS, C, SQL.

Certificate: SAS Certified Base Programmer for SAS 9 Credential.

SAS Certified Advanced Programmer for SAS 9 Credential.