Jiaxin Hu

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Education

• Department of Statistics, University of Wisconsin-Madison (UW-Madison)

Madison, USA

M.S. in Data Science

Sep.2018* - May.2020(Expected)

Overall GPA: 3.926/4.0

Core Courses: Statistical Inference(A), Statistical Method(A), Statistical Learning(A), Nonlinear Optimization

School of Mathematics and Statistics, Wuhan University

Wuhan, China

B.S. in Statistics

Sep.2015 - Jun.2019

Overall GPA: 3.77/4.0 **Rank:** 7/50

Core Courses: Advanced Algebra, Mathematical Analysis (96), Numerical Analysis (100), Probability Theory (94), Mathematical Statistics, Real Analysis, Stochastic Processes (92).

*One-year graduate education in UW-Madison as an undergraduate of Wuhan University. Sep. 2018 - Jun. 2019

Publications

• Z.Xu*, **J.Hu*** and M.Wang (2019). *Generalized tensor regression with covariates on multiple modes*. Under review in the Journal of Machine Learning Research W & CP (AISTATS track). arXiv:1910.09499 [stat.ME].

• Z.Xu*, **J.Hu*** and M.Wang (2019). R package tensorregress: Generalized Tensor Regression with Covariates on Multiple Modes. Published on the Comprehensive R Archive Network. *equal contribution

Presentations

Poster Presentation. Presented to faculty from the Department of Biological Medicine Information/Statistics/
Computer Science in the UW-Madison. Annual Retreat of the Computation and Informatics in Biology and
Medicine (CIBM) Training Program and the Bio-Data Science (BDS) Program. Madison, WI.

Research Experiences

Research Assistant, Tensor Research

Feb. 2019 - Present

Advisor: Prof. Miaoyan Wang (Department of Statistics, University of Wisconsin-Madison)

General & Summer Reading Group

- Provided progress for the ongoing projects on weekly meetings. Presented relevant papers on group discussions.
- Attended weekly seminars with various statistical topics held by the Department of Statistics, UW-Madison.
- Read papers and gave 60-minute presentations for papers by **T.Tony Cai**, et.al. and **Andrea Montanari**, et.al.
- Led group discussions on the related topics. Wrote formal peer reviews for each presentation given by cohorts.

Tensor Regression

- Proposed a generalized tensor regression model with covariates on multiple modes and a rank-constrained likelihood estimation for the tensor-form coefficient. Proved the statistical convergence property of the estimate.
- Developed and implemented an optimization algorithm. Built an R package for practical application.
- Ran designed simulations. Applied our method to brain network analysis and multi-relationship network.
- Drafted original manuscripts of the submitted paper (currently under review).

Project Member, Yelp data Analysis

Oct.2019 - Present

Advisor: Prof. Hyunseung Kang (Department of Statistics, University of Wisconsin-Madison)

- Applied Natural Language Processing method to investigate latent sensitive information from customer reviews.
- Provided the main idea to construct an application for restaurant assessment facing business owners.

Project Member, Premier League data Analysis

Sep.2018 - Nov.2018

Advisor: Prof. Sebastian Raschka (Department of Statistics, University of Wisconsin-Madison)

- Performed Principal Component Analysis and Clustering to find football team clusters in different aspects.
- Implemented Softmax and Decision Tree to indicate the importance of each team feature.

Awards

• Exchange & Visiting International Student Academic Excellence award of UW-Madison.

May.2019

• Second-Class Scholarship for Excellent Students at Wuhan University (5/51).

Oct.2016/2017/2018

• First Prize of E Ming Cup Debate Competition of Wuhan University.

Dec.2015