Jing Zeng

Contact

Department of Statistics, Florida State University
214 OSB, 117 N. Woodward Ave., P.O. Box 3064330
Tallahassee, FL 32306-4330, USA
Email: jz17c@my.fsu.edu
Github: `https://github.com/leozeng15`
Website: `https://ani.stat.fsu.edu/~jing.zeng/`

Education

Florida State University, Department of Statistics
Ph.D. in Statistics (GPA: 4.0/4.0) Aug 2017 - May 2022
Advisor: Xin Zhang

University of Science and Technology of China, School of Mathematical Sciences
B.S. in Probability and Statistics (GPA: 3.72/4.3) Sep 2013 - June 2017

Skills

Languages: R (3+ years), Python, MATLAB, C, LaTeX, SQL

Utilities: Git, Linux, HPC, R package writing, Jupyter Notebook, Python scientific packages (numpy, pandas, scikit-learn, keras, etc)

Publications

1. Li, L., Zeng, J. and Zhang, X. (2020) Generalized Liquid Association Analysis for Multimodal Data Integration. *arXiv preprint arXiv:2008.03733,* 2020.
2. Zeng, J., Mai, Q. and Zhang, X. (2020). Subspace Estimation with Automatic Dimension and Variable Selection in Sufficient Dimension Reduction. Submitted.
3. Zeng, J., Wang, W. and Zhang, X. (2020+). TRES: An R Package for Tensor Regression and Envelope Algorithms. *Journal of Statistical Software*, accepted.

Projects

1. Low-rank sparse linear discriminant analysis (LDA) in high dimensions
   joint work with Prof. Xin Zhang and Prof. Qing Mai Feb 2020 - July 2020
2. Generalized Liquid Association Analysis for Multimodal Data Integration
   joint work with Prof. Lexin Li and Prof. Xin Zhang Feb 2020 - July 2020
3. Subspace Estimation with Automatic Dimension and Variable Selection (SEAS)
   joint work with Prof. Qing Mai and Prof. Xin Zhang Jan 2018 - Feb 2020
   - Proposed a unified and flexible framework for estimating the sufficient dimension reduction (SDR) subspace in high dimensions, where the subspace is assumed to involve only a part of predictors.
   - Extended many existing low-dimensional SDR methods to high dimensions
   - Formulated the problem as a quadratic convex optimization and proposed the corresponding efficient algorithm
   - Provide the theoretical proofs for both dimension selection and variable selection consistency.
   - Successfully improved the prediction performance on some high-dimensional data sets, e.g., gene expression data.

4. R package writing: **TRES** (available at `https://CRAN.R-project.org/package=TRES`)
   joint work with Dr. Wenjing Wang and Prof. Xin Zhang June 2019 - Dec 2019
   - Standardized some functions in the first version.
   - Wrote several S3 methods.
   - Solved all the issues and bugs in the first version.
   - Rewrote the help documentations to provide more useful information.

Professional Experience

- Presenter, invited talk at International Conference on Econometrics and Statistics (EcoSta)
  Seoul, South Korea July 2021 (upcoming)
- Presenter, contributed talk at Joint Statistical Meetings (JSM)
  Denver, CO July 2019
- Seminar organizer, Florida State University
  Tallahassee, FL Aug 2019 - Dec 2019
  - Organized the seminar with the topic: *High-dimensional data and dimension reduction.*
  - Gave the presentations about my research and some self-studied skills, which intrigued the members' interests.
- Research assistant, Florida State University
  Tallahassee, FL June 2019 - Present
  - Conducted two projects with Prof. Xin Zhang and help organize the seminar successfully.
  - Published the R package TRES on CRAN.
  - Submitted two papers to *Annals of Statistics* and *Journal of Statistical Software* separately.
- Solo instructor & Teaching assistant, Florida State University
  Tallahassee, FL Aug 2017 - May 2019
  - Independently taught two sections with four classes a week, 50 mins per class.
  - Organized the group activity in class and successfully activated the students.
  - Achieved around 5/5 median evaluation score.
- Summer intern, Industrial and Commercial Bank of China
  Hefei, P. R. China Jul 2016 - Aug 2016
  - Cooperated with other staff in a group and studied the application of system maintenance in bank system.
  - Used SQL (with software MySQL and Oracle) to process data.

Achievements

- Outstanding Teaching Assistant Award (OTAA) nomination, Florida State University, Jan 2020
- Best First Year Student in Applied Statistics Award (top 10), Florida State University, Oct 2018
  - The award is presented in recognition of outstanding achievement as a graduate student.
- Scholarship for Outstanding Students, Third Prize (top 20%), University of Science and Technology of China, Sep 2015
- Scholarship for Outstanding Students, Second Prize (top 10%), University of Science and Technology of China, Sep 2014

Relevant Courses

- **Online**: Advanced Machine Learning, Neural Networks and Deep Learning, Intro to SQL for Data Science.
- **Classroom**: Computational Methods in Statistics, Advanced Probability and Inference, Application in Statistics (Linear Regression and Generalized Linear Model), Time Series Analysis, Stochastic Process, Non-parametric Statistics, Real Analysis, Complex Analysis, Functional Analysis, Differential Equation, Computer Programming (C and C++), Data Structure and Database.