RUNSHI TANG

rtang56@wisc.edu ⋄ Madison, WI ⋄ May 20, 2024

EDUCATION

Bachelor of Science   2016-2020
School of Mathematics, Shandong University
-Academic Excellence Award in 2016-2017, 2017-2018
(Exchanged to UW-Madison for further education in advance since 2019)

Master in Statistics - Data Science Track   2019-2021
Department of Statistics, University of Wisconsin-Madison
-Academic Excellence Award in 2019-2020

Ph.D. in Statistics   2021-Present
Department of Statistics, University of Wisconsin-Madison; Advised by Profs. Anru Zhang (Duke) and Richard Chappell (UW-Madison)

PAPERS

(†: equal contribution)

1. **Tang, R.**, Yuan, M., & Zhang, A. R. (2023). Mode-wise Principal Subspace Pursuit and Matrix Spiked Covariance Model. *Journal of the Royal Statistical Society, Series B*, major revision under review.

2. Towe, S. L., **Tang, R.**, Gibson, M. J., Zhang, A. R., & Meade, C. S. (2023). Longitudinal changes in neurocognitive performance related to drug use intensity in a sample of persons with and without HIV who use illicit stimulants. *Drug and alcohol dependence*, 110923.

3. Zhang, A. R.[†], Bell, R.[†], An, C.[†], **Tang R.**[†], Shana Hall, S., Chan, C., Al-Khalil, K., & Meade, C. (2023). Cocaine Use Prediction with Tensor-based Machine Learning on Multimodal MRI Connectome Data, *Neural Computation*, 36.1 (2023): 107-127.

4. **Tang, R.**, Kolda, T., & Zhang, A. R. (2024+). Tensor Decomposition with Unaligned Observations. *IEEE Transactions on Signal Processing*, submitted.

AWARDS

1. Honorable Mention Award in the 2024 Student Paper Competition of the ASA Statistical Learning and Data Science Section, "Mode-wise Principal Subspace Pursuit and Matrix Spiked Covariance Model."

2. 2024 ASA Student and Early Career Travel Fund

EXPERIENCES

Project Assistant   Sep 2022 - Now
Institute for Research on Poverty, UW-Madison   *Madison, WI*

- Supervised by Prof. Jessica Pac and Prof. Lawrence Berger (Institute for Research on Poverty & School of Social Science, UW-Madison)
- Study the relationship between child well-being and various policies
- Part of our results were presented by Prof. Lawrence Berger in the 2023 International Society for the Prevention of Child Abuse & Neglect Congress

Academia Internship   Summer, 2022
School of Medicine, Duke University   *Durham, NC*

- Supervised by Prof. Anru Zhang (Department of Biostatistics & Bioinformatics) and Prof. Christina Meade (Department of Psychiatry and Behavioral Sciences)
- Participated in two projects: longitudinal study on HIV contributes to neurocognitive impairments in persons who use stimulants and applying the novel tensor-based method on MRI data to predict cocaine use
- Presented a poster at the 18th annual CFAR Fall Scientific Retreat

Teaching Assistant   Sep 2021 - May 2022

Department of Statistics, UW-Madison   *Madison, WI*

- Fall 2021: STAT 324, Introductory Applied Statistics for Engineers
- Spring 2022: STAT 324, Introductory Applied Statistics for Engineers

Project Assistant   Sep 2020 - Aug. 2021

Department of Statistics, UW-Madison   *Madison, WI*

- Supervised by Prof. Awad Hanna (Department of Civil & Environmental Engineering, UW-Madison) and Prof. Wei-Yin Loh (Department of Statistics, UW-Madison)
- Using statistics and programming, Process and analyze data for a research project on construction material transportation of the Department of Civil & Engineering.

Actuarial Internship   Summer, 2018

Taishan Property Insurance Co., Ltd.   *Jinan, Shandong Province, China*

- Work for Actuarial Dept.; Learn structure of insurance company and knowledge of Property Insurance and making Actuarial Report; Help make observation report on opponents.

RESEARCH INTEREST

- High dimensional statistics, spiked covariance model, tensor decomposition, matrix analysis, optimization ...
- Applying theories into different practical fields, including social science and clinical science.