Guo Yu

University of Washington Department of Statistics Padelford Hall B-316 Seattle, WA 98105

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Research Interests

Statistical machine learning; high-dimensional statistics; multiple testing; multi-view data analysis

Academic Position

Postdoctoral Research Associate, Department of Statistics, University of Washington, July, 2018 -

Advisors: Daniela Witten, University of Washington

Jacob Bien, University of Southern California

Education

Ph.D. Statistics, Cornell University, 2018.

Advisor: Jacob Bien GPA:4.12/4.30 Minor in Operations Research

M.S. Statistics, Cornell University, 2016.

B.S. Mathematics, Chu Kochen Honors College, Zhejiang University, 2013.

Publications

Statistical methodology:

Yu, G., Witten, D. M., and Bien, J. (2019) **Controlling Costs: Feature Selection on a Budget**. *Submitted*. https://arxiv.org/abs/1910.03627.

Yu, G., Bien, J., and Tibshirani, R. J. (2019) **Reluctant Interaction Modeling**. *Submitted*. http://arxiv.org/abs/1907.08414

Yu, G., Bien, J., and Witten, D. M. (2019) Discussion of "CARS: Covariate assisted ranking and screening for large-scale two-sample inference" by Cai et al. Journal of the Royal Statistical Society: Series B (Statistical Methodology), 81(2), 187-234.

Yu, G., Bien, J. (2019) Estimating the Error Variance in a High-dimensional Linear Model. *Biometrika* 106(3): 533-546.

Yu, G., Bien, J. (2017) **Learning Local Dependence In Ordered Data**. *Journal of Machine Learning Research (JMLR)*. 18(42), 1-60.

Applications:

Gao, M., Zhang, Z., Yu, G., Arik, S., Davis, L. S., and Pfister, T. (2020) Consistency-based semi-supervised active learning: Towards minimizing labeling budget. *Submitted*.

Zhang, Q., Yu, G., Guo, CX., Dang, Y., Swanson, N., Yang, X., Yao, R., Chintalapati, M., Krishnamurthy, A., Anderson, T. (2018). Deepview: Virtual Disk Failure Diagnosis and Pattern Detection for the IaaS Service. 15th USENIX Symposium on Networked Systems Design and Implementation (NSDI'18).

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R Packages on CRAN

sprintr: R package for Sparse Reluctant Interaction Modeling (2019).

natural: R package for Estimating the Error Variance in a High-Dimensional Linear Model (2017).

varband: R package for Variable Banding of Large Precision Matrices (2016).

Experience

Research Intern at Microsoft AI & Research, Redmond, Washington (Summer 2017).

Award

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2018 Outstanding Graduate Teaching Assistant Award, Cornell University2016 Graduate Research Travel Award, Cornell University
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Teaching

University of Washington

Guest Lecture

STAT 435, Introduction to Statistical Machine Learning (March 4th, 2019)

BIOSTAT 546, Machine Learning for Biomedical and Public Health Big Data (March 4th, 2019)

Cornell University

Teaching Assistant

STSCI 4090, Theory of Statistics (Spring 2018) (2018 Outstanding Graduate Teaching Assistant Award)

STSCI 4550, Applied Time Series (Spring 2017, Spring 2016)

STSCI 4740, Data Mining and Machine Learning (Fall 2016)

STSCI 4030, Linear Models with Matrices (Fall 2015)

ILRST 5100, Statistical Methods for the Social Sciences I (Fall 2014, Spring 2015)

ILRST 2100, Introductory Statistics (Spring 2014)

MATH 1910, Calculus for Engineers (Fall 2013)

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Presentation

Department of Statistics Seminar, University of Iowa, Iowa City, IA (Feb 11, 2020)

Department of Applied and Computational Mathematics and Statistics Colloquium, University of Notre Dame, Notre Dame, IN (Feb 5, 2020)

Department of Statistics Seminar, Purdue University, West Lafayette, IN (Feb 4, 2020)

Quantitative Methods Group Seminar, Krannert School of Management, Purdue University, West Lafayette, IN (Feb 3, 2020)

Department of Statistics Seminar, University of Illinois Urbana-Champaign, Champaign IL (Jan 28, 2020)

Department of Statistics Seminar, University of Florida, Gainesville FL (Jan 22, 2020)

Department of Statistics Seminar, Indiana University Bloomington, Bloomington IN (Jan 16, 2020)

Department of Statistics Seminar, University of Virginia, Charlottesville, VA (Jan 14, 2020)

Department of Statistics and Applied Probability Seminar, University of California Santa Barbara, Goleta, CA (Jan 8, 2020)

Department of Statistics Seminar, Iowa State University, Ames, IA (Dec 16, 2019)

Joint Statistical Meetings, Denver, CO (July 31, 2019)

Symposium on Data Science and Statistics 2019, Bellevue, WA (May 31, 2019)

Machine Learning Seminar, Department of Computer Science, University of Washington, Seattle, WA (January 22, 2019)

Joint Statistical Meetings, Vancouver, BC, Canada (August 2, 2018)

Joint Statistical Meetings, Chicago, IL (August 3, 2016)

Department of Statistics Student Seminar, Cornell University, Ithaca, NY (December 7, 2015)

Department of Statistics Student Seminar, Cornell University, Ithaca, NY (April 15, 2015)

Professional Service

Referee for Annals of Statistics; Journal of the American Statistical Association: Theory and Methods; Biometrika; Journal of Machine Learning Research; Statistical Science; Machine Learning; The American Statistician; Journal of Computational and Graphical Statistics; Statistica Sinica; Statistics in Medicine; Conference on Uncertainty in Artificial Intelligence (UAI), 2020.

Hobbies

Hiking, weightlifting, oboe, blues harmonica, classical music