Y. Samuel Wang

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ACADEMIC POSITIONS

Post-doctoral Research Professional

2018 -

The University of Chicago; Booth School of Business

Supervisor: Mladen Kolar

EDUCATION

Ph.D. in Statistics

2012 - 2018

University of Washington

Thesis: Linear structural equation models with non-Gaussian errors

Advisor: Mathias Drton

Committee members: Thomas Richardson and Emily Fox

B.A. in Applied Math; Economics

2006 - 2010

Rice University

Magna Cum Laude; Phi Beta Kappa

PUBLICATIONS

- 1) Wang, Y. S. and Drton, M. (2020). High-dimensional causal discovery under non-Gaussianity. *Biometrika*, 107(1):41–59
- 2) Zhao, B., Wang, Y. S., and Kolar, M. (2019). Direct estimation of differential functional graphical models. In Advances in Neural Information Processing Systems 32: Annual Conference on Neural Information Processing Systems 2019, NeurIPS 2019, 8-14 December 2019, Vancouver, BC, Canada, pages 2571–2581
- 3) Chen, W., Drton, M., and Wang, Y. S. (2019). On causal discovery with an equal-variance assumption. *Biometrika*, 106(4):973–980
- 4) Drton, M., Fox, C., Wang, Y. S., et al. (2019). Computation of maximum likelihood estimates in cyclic structural equation models. *The Annals of Statistics*, 47(2):663–690
- 5) Chen, Y.-C., Wang, Y. S., and Erosheva, E. A. (2018). On the use of bootstrap with variational inference: Theory, interpretation, and a two-sample test example. *The Annals of Applied Statistics*, 12(2):846–876
- 6) Wang, Y. S., Matsueda, R. L., Erosheva, E. A., et al. (2017). A variational EM method for mixed membership models with multivariate rank data: An analysis of public policy preferences. The Annals of Applied Statistics, 11(3):1452–1480
- 7) Wang, Y. S. and Drton, M. (2017). Empirical likelihood for linear structural equation models with dependent errors. *Stat*, 6(1):434–447

Submitted Preprints

Wang, Y. S., Lee, C., West, J., Bergstrom, C., Erosheva, E.A. "Gender-based homophily in collaborations across a heterogeneous scholarly landscape" [arXiv]

Zhao, B., Wang, Y. S., Kolar, M. "FuDGE: Functional Differential Graph Estimation with fully and discretely observed curves" [arXiv]

Wang, Y. S., Drton, M. "Causal discovery with unobserved confounding and non-Gaussian data" [arXiv]

TECHNICAL REPORTS Wang, Y. S., Erosheva, E. A. (2016) "On the relationship between set-based and network-based measures of gender homophily in scholarly publications" [arXiv]

Wang, Y. S., Erosheva, E. A. (2015) "Fitting mixed membership models using mixedmem" [CRAN]

Teaching

University of Washington

Lead Instructor: STAT 311: Elements of Statistical Methods

Teaching Assistant: STAT 220: Principles of Statistical Reasoning; STAT 221: Statistical Reasoning; STAT 221: Statistical Reasoning; STAT 221: Statistical Sciences; STAT 311: Elements of Statistical Methods; STAT 421: Applied Statistics and Experimental Design; STAT 534: Statistical Computing; STAT 566: Causal Modeling; STAT 570: Adv Regression Methods for Indep Data; CSSS 589: Multivariate Data Analysis for the Social Sciences

Professional Service UW Statistics Dept Lead TA

2013, 2016

Journal Referee: Annals of Applied Statistics; Annals of Statistics; Bernoulli; Biometrika; Biometrics; Electronic Journal of Statistics, International Journal of Approximate Reasoning; Journal of the American Statistical Association; Journal of Machine Learning Research Conference Referee: AISTATS; ICML; NeurIPS; UAI

Non-academic experience

Susquehanna International Group

2013

Assistant Trader Intern

- Worked on the index/ETF desk; created tools for calculating "robust" beta and bootstrapping portfolio risk

Deloitte 2010 – 2012

Strategy and Operations Consultant

- Focused on analytic strategy and supply chain risk assessments with heavy manufacturing, technology hardware, and oil and gas clients
- Houston office Business Analyst Action Committee lead