Y. Samuel Wang

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CURRENT POSITION	Assistant Professor *Cornell University* *Department of Statistics and Data Science*	2021 -
EDUCATION AND PREVIOUS ACADEMIC POSITIONS	Principal researcher (post-doc) *The University of Chicago* *Booth School of Business* Supervisor: Mladen Kolar	2018 - 2021
	Ph.D. in Statistics *University of Washington* Thesis: *Linear structural equation models with non-Gaussian errors* Advisor: Mathias Drton Committee members: Thomas Richardson and Emily Fox	2012 - 2018
	B.A. in Applied Math; Economics *Rice University*	2006 - 2010

PUBLICATIONS

1) Zhao, B., Wang, Y. S., and Kolar, M. (2022). Fudge: A method to estimate a functional differential graph in a high-dimensional setting. *Journal of Machine Learning Research*, 23(82):1–82

2) Wang, Y. S., Lee, S. K., Toulis, P., and Kolar, M. (2021). Robust inference for high-dimensional linear models via residual randomization. In Meila, M. and Zhang, T., editors, *Proceedings of the 38th International Conference on Machine Learning*, volume 139 of *Proceedings of Machine Learning Research*, pages 10805–10815. PMLR

3) Wang, Y. S. and Drton, M. (2020). High-dimensional causal discovery under non-Gaussianity. *Biometrika*, 107(1):41–59

4) 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

5) Chen, W., Drton, M., and Wang, Y. S. (2019). On causal discovery with an equal-variance assumption. *Biometrika*, 106(4):973–980

6) Drton, M., Fox, C., and Wang, Y. S. (2019). Computation of maximum likelihood estimates in cyclic structural equation models. *The Annals of Statistics*, 47(2):663–690

7) 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

8) Wang, Y. S., Matsueda, R. L., and Erosheva, E. A. (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

9) Wang, Y. S. and Drton, M. (2017). Empirical likelihood for linear structural equation models with dependent errors. *Stat*, 6(1):434–447

PREPRINTS

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

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

3) Zhao, B.; Zhai, S.; Wang, Y. S.; Kolar, M. "High-dimensional Functional Graphical Model Structure Learning via Neighborhood Selection Approach " [arXiv]

TECHNICAL REPORTS AND SOFTWARE

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

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

OTHER PUBLICATIONS

1) Varshney, A., Wang, Y. S., Watson, R. A., Noll, A., Rossi, J., Shah, P. B., Kaneko, T., Giugliano, R. P., and Adler, D. S. (2018). Abstract 12195: Relationship between transcatheter aortic valve replacement wait time and mortality in patients with symptomatic severe aortic stenosis. *Circulation*, 138(Suppl_1):A12195–A12195

PRESENTATIONS

2022
UPSTAT
Online Causal Inference Seminar
Johns Hopkins Causal Inference Working Group

2021
Colorado State, Statistics
Emory, Quantitative Theory and Methods
University of Southern California, School of Business
Cornell, Statistics and Data Science
University of Waterloo, Statistics and Actuarial Science
University of Toronto, Statistics
Stevens Institute of Technology, School of Business
Temple, School of Business

2020
Texas A&M, Statistics
Shiga University, International Symposium on Data Science Research and Practice

Prior to 2020
JSM (2015, 2017, 2018, 2019)
CMSTAT (2018)
American Sociological Association Annual Meeting (2018)
Wisconsin Institute for Discovery at UW-Madison (2017)
Toyota Technical Institute - Chicago (2017)

TEACHING

Lead Instructor:
Cornell University
BTRY 6020: Statistical Methods II

University of Washington
STAT 311: Elements of Statistical Methods

Teaching Assistant:

University of Washington
STAT 220: Principles of Statistical Reasoning
STAT 221: Statistical Concepts for Social 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

Statistics Dept Lead TA, University of Washington   2013, 2016

STATISTICAL CONSULTING	**Statistical consultant**, University of Washington *Center for Statistics and the Social Sciences*	2017 - 2018

PROFESSIONAL SERVICE

Journal Referee: Annals of Applied Statistics; Annals of Statistics; Bernoulli; Biometrika; Biometrics; Computational Statistics and Data Analysis; Electronic Journal of Statistics; IEEE Transactions on Neural Networks and Learning; International Journal of Approximate Reasoning; Journal of the American Statistical Association; Journal of Causal Inference; Journal of Computational and Graphical Statistics; Journal of Machine Learning Research; Journal of the Royal Statistical Society: Series B

Conference Referee: AISTATS; ICML; NeurIPS; UAI; CLEAR

Other: NSF proposal reviewer, JMLR editorial board reviewer

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

PERSONAL INTERESTS

Soccer, Cycling, Hiking, Cooking