

CURRENT POSITION	Assistant Professor <i>Cornell University</i> <i>Department of Statistics and Data Science</i>	2021 -
EDUCATION AND PREVIOUS ACADEMIC POSITIONS	Principal researcher (post-doc) <i>The University of Chicago, Booth School of Business</i>  Ph.D. in Statistics <i>University of Washington</i> Thesis: <i>Linear structural equation models with non-Gaussian errors</i>  B.A. in Applied Math; Economics <i>Rice University</i>	2018 - 2021  2012 - 2018  2006 - 2010
PREPRINTS	1) Wang, Y. S., Kolar, M., Drton, M. “Confidence Sets for Causal Orderings” [arXiv] <i>Selected for Tom Ten Have Award at ACIC 2023</i>	
PUBLICATIONS	1) Zhao, B., Zhai, P. S., Wang, Y. S., and Kolar, M. (2024). High-dimensional functional graphical model structure learning via neighborhood selection approach. <i>Electronic Journal of Statistics</i> , 18(1):1042–1129  2) Duggan DiDominic, K. L., Shapleigh, J. P., Walter, M. T., Wang, Y. S., Reid, M. C., and Regan, J. M. (2024). Microbial diversity and gene abundance in denitrifying bioreactors: A comparison of the woodchip surface biofilm versus the interior wood matrix. <i>Journal of Environmental Quality</i> , 53(5):565–576  3) Wang, Y. S. and Drton, M. (2023). Causal discovery with unobserved confounding and non-Gaussian data. <i>Journal of Machine Learning Research</i> , 24(271):1–61  4) Wang, Y. S., Lee, C. J., West, J. D., Bergstrom, C. T., and Erosheva, E. A. (2023). Gender-based homophily in collaborations across a heterogeneous scholarly landscape. <i>Plos one</i> , 18(4):e0283106  5) Zhao, B., Wang, Y. S., and Kolar, M. (2022). Fudge: A method to estimate a functional differential graph in a high-dimensional setting. <i>Journal of Machine Learning Research</i> , 23(82):1–82  6) 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, <i>Proceedings of the 38th International Conference on Machine Learning</i> , volume 139 of <i>Proceedings of Machine Learning Research</i> , pages 10805–10815. PMLR  7) Wang, Y. S. and Drton, M. (2020). High-dimensional causal discovery under non-Gaussianity. <i>Biometrika</i> , 107(1):41–59  8) Zhao, B., Wang, Y. S., and Kolar, M. (2019). Direct estimation of differential functional graphical models. In <i>Advances in Neural Information Processing Systems 32: Annual Conference on Neural Information Processing Systems 2019, NeurIPS 2019, 8-14 December 2019, Vancouver, BC, Canada</i> , pages 2571–2581  9) Chen, W., Drton, M., and Wang, Y. S. (2019). On causal discovery with an equal-variance assumption. <i>Biometrika</i> , 106(4):973–980	

- 10) 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
- 11) 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
- 12) 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
- 13) 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
- 14) Wang, Y. S. and Drton, M. (2017). Empirical likelihood for linear structural equation models with dependent errors. *Stat*, 6(1):434–447

AWARDS                      Tom Ten Have Award, American Causal Inference Conference (ACIC) 2023  
*The Tom Ten Have Award is awarded at each ACIC to two early career researcher poster presenters for posters that exhibit exceptionally creative or skillful research on causal inference*

PRESENTATIONS        **2024**  
University of Washington, Statistics and Machine Learning for the Social Sciences  
ASA Conference on Statistical Learning and Data Science  
**2023**  
TU Munich, Computation, Information and Technology  
University of Texas at Austin, Salem Center for Public Policy  
New England Statistics Symposium (NESS)  
Western North American Region (WNAR) of the International Biometric Society  
Algebraic Statistics for Ecol. and Biol. Systems, Inst. for Math. and Stat. Innovation  
Computational and Methodological Statistics (CMStat)  
**2022**  
UPSTAT  
Online Causal Inference Seminar  
Johns Hopkins Causal Inference Working Group  
Cornell Center for Applied Math  
**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

*Cornell University*  
 STSCI / INFO / ILRST 3900: Causal Inference  
 STSCI 6940: Graphical Models (Special Topics)  
 BTRY 6020: Statistical Methods II

*University of Washington*  
 STAT 311: Elements of Statistical Methods

### **Undergraduate Independent Study**

Abby Sachar (2022-23)  
 Ziqing Wang (2021-22)

## 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](#)]

## 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; Statistica Sinica

**Conference Referee:** AISTATS; ICML; NeurIPS; UAI; CLear

**National Institute of Statistical Sciences:** Academic Affiliates Committee, Graduate Students Network Steering Committee

## INDUSTRY EXPERIENCE

**Susquehanna International Group** 2013  
*Assistant Trader Intern*

**Deloitte** 2010 – 2012  
*Strategy and Operations Consultant*