

# Y. Samuel Wang

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CONTACT INFORMATION	5807 S Woodlawn Ave Chicago, IL 60637 swang24@uchicago.edu ysamuelwang.com	
ACADEMIC POSITIONS	Principal researcher (post-doc) <i>The University of Chicago; Booth School of Business</i> Supervisor: Mladen Kolar	2018 -
EDUCATION	Ph.D. in Statistics <i>University of Washington</i> Thesis: <i>Linear structural equation models with non-Gaussian errors</i> Advisor: Mathias Drton Committee members: Thomas Richardson and Emily Fox  B.A. in Applied Math; Economics <i>Rice University</i> Magna Cum Laude; Phi Beta Kappa	2012 - 2018       2006 - 2010
PUBLICATIONS	<ol style="list-style-type: none"><li>1) Wang, Y. S. and Drton, M. (2020). High-dimensional causal discovery under non-Gaussianity. <i>Biometrika</i>, 107(1):41–59</li><li>2) 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</li><li>3) Chen, W., Drton, M., and Wang, Y. S. (2019). On causal discovery with an equal-variance assumption. <i>Biometrika</i>, 106(4):973–980</li><li>4) Drton, M., Fox, C., Wang, Y. S., et al. (2019). Computation of maximum likelihood estimates in cyclic structural equation models. <i>The Annals of Statistics</i>, 47(2):663–690</li><li>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. <i>The Annals of Applied Statistics</i>, 12(2):846–876</li><li>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. <i>The Annals of Applied Statistics</i>, 11(3):1452–1480</li><li>7) Wang, Y. S. and Drton, M. (2017). Empirical likelihood for linear structural equation models with dependent errors. <i>Stat</i>, 6(1):434–447</li></ol>	
SUBMITTED PREPRINTS	<ol style="list-style-type: none"><li>1) Wang, Y. S., Lee, C., West, J., Bergstrom, C., Erosheva, E.A. “Gender-based homophily in collaborations across a heterogeneous scholarly landscape” [arXiv]</li><li>2) Zhao, B., Wang, Y. S., Kolar, M. “FuDGE: Functional Differential Graph Estimation with fully and discretely observed curves” [arXiv]</li></ol>	

	3) Wang, Y. S., Drton, M. “Causal discovery with unobserved confounding and non-Gaussian data” <a href="#">[arXiv]</a>	
WORK IN PROGRESS	<p>“Confidence sets for causal discovery” with <i>Mathias Drton and Mladen Kolar</i></p> <p>“High-dimensional residual randomization inference” with <i>Yi Ding, Mladen Kolar, Si Kai Lee, and Panos Toulis</i></p> <p>“Posterior summarization for time varying dynamic Bayesian models” with <i>Mladen Kolar, Si Kai Lee, and David Puelz</i></p> <p>“Estimation of Functional Graphical Models via neighborhood selection” with <i>Mladen Kolar, Percy Zhai, and Boxin Zhao</i></p> <p>“Non-parametric estimation of the score function” with <i>Mladen Kolar</i></p>	
TECHNICAL REPORTS AND SOFTWARE	<p>Wang, Y. S., Erosheva, E. A. (2016) “On the relationship between set-based and network-based measures of gender homophily in scholarly publications” <a href="#">[arXiv]</a></p> <p>Wang, Y. S., Erosheva, E. A. (2015) “Fitting mixed membership models using <code>mixedmem</code>” <a href="#">[CRAN]</a></p>	
TEACHING	<p><b>Statistics Dept Lead TA</b>, Univ of Washington</p> <p><b>Lead Instructor:</b></p> <p><i>University of Washington</i></p> <p>STAT 311: Elements of Statistical Methods</p> <p><b>Teaching Assistant:</b></p> <p><i>University of Washington</i></p> <p>STAT 220: Principles of Statistical Reasoning</p> <p>STAT 221: Statistical Concepts for Social Sciences</p> <p>STAT 311: Elements of Statistical Methods</p> <p>STAT 421: Applied Statistics and Experimental Design</p> <p>STAT 534: Statistical Computing</p> <p>STAT 566: Causal Modeling</p> <p>STAT 570: Adv Regression Methods for Indep Data</p> <p>CSSS 589: Multivariate Data Analysis for the Social Sciences</p>	2013, 2016
PROFESSIONAL SERVICE	<p><b>Journal Referee:</b> 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</p> <p><b>Conference Referee:</b> AISTATS; ICML; NeurIPS; UAI</p> <p><b>Other:</b> NSF proposal reviewer, JMLR editorial board reviewer</p>	
NON-ACADEMIC EXPERIENCE	<p><b>Susquehanna International Group</b></p> <p><i>Assistant Trader Intern</i></p> <ul style="list-style-type: none"> <li>- Worked on the index/ETF desk; created tools for calculating “robust” beta and bootstrapping portfolio risk</li> </ul>	2013

**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