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Google Scholar

JASON POULOS

postdoctoral training

Postdoctoral Fellow in Machine Learning, Brigham and Women's Hospital and Harvard Medical School, 2023 – 2024

Postdoctoral Fellow in Data Science, Department of Health Care Policy, Harvard Medical School, 2021 – 2023

Postdoctoral Associate, Causal Inference and Deep Learning Programs, Statistical and Applied Mathematical Sciences Institute, 2019 – 2021

education

Ph.D., Political Science with a Designated Emphasis in Computational Science and Engineering, University of California, Berkeley, 2019

> NSF Graduate Research Fellowship

M.A., Political Science, University of California, Berkeley, 2014

B.A., Economics (Phi Beta Kappa), University of Massachusetts, Amherst

selected articles

Denis Agniel, Sharon-Lise Normand, John Newcomer, Katya Zelevinsky, **Jason Poulos**, Jeannette Tsuei, and Marcela Horvitz-Lennon (2024). "Revisiting Diabetes Risk of Olanzapine versus Aripiprazole for Serious Mental Illness Care." *BJPsych Open*, 10(5): e144.

Jason Poulos (2024). "State-Building through Public Land Disposal? An Application of Matrix Completion for Counterfactual Prediction." *Statistics and Public Policy*, 11(1).

Jason Poulos, Marcela Horvitz-Lennon, Katya Zelevinsky, Thomas Huijskens, Pooja Tyagi, Jiaju Yan, Jordi Diaz, Tudor Cristea-Platon, and Sharon-Lise Normand (2024). "Targeted Learning in Observational Studies with Multi-Valued Treatments: An Evaluation of Antipsychotic Drug Treatment Safety." *Statistics in Medicine*, 43(8):1489-1508.

Jason Poulos, Sharon-Lise Normand, Katya Zelevinsky, John Newcomer, Denis Agniel, Haley Abing, and Marcela Horvitz-Lennon (2023). "Antipsychotics and the Risk of Diabetes and Death among Adults with Serious Mental Illnesses." *Psychological Medicine*, 53(16):7677-7684.

David Rios Insua, Roi Naveiro, Víctor Gallego, and **Jason Poulos** (2023). "Adversarial Machine Learning: Bayesian Perspectives." *Journal of the American Statistical Association*, 115(543): 2195-2206.

Zhenhua Wang, Olanrewaju Akande, **Jason Poulos**, and Fan Li (2022). "Are Deep Learning Models Superior for Missing Data Imputation in Surveys? Evidence from an Empirical Comparison." *Survey Methodology*, 48(2): 375-399.

Jason Poulos and Shuxi Zeng (2021). "RNN-Based Counterfactual Prediction, with an Application to Homestead Policy and Public Schooling." *Journal of the Royal Statistical Society, Series C*, 70(4): 1124-1139.

Jason Poulos and Rafael Valle (2021). "Character-Based Handwritten Text Transcription with Attention Networks." *Neural Computing & Applications*, 33(16): 10563-10573.

Kellie Ottoboni and **Jason Poulos** (2020). "Estimating Population Average Treatment Effects from Experiments with Noncompliance." *Journal of Causal Inference*, 8(1): 108-130.

Jason Poulos and Rafael Valle (2018). "Missing Data Imputation for Supervised Learning." *Applied Artificial Intelligence* 32(2): 186-196.

🎓 Full list of articles on Google Scholar.

professional service

Book Reviewer: Chapman & Hall/CRC Statistics; Springer Mathematics

Conference Reviewer: Artificial Intelligence and Statistics (AISTATS; 2023 – 2025); International Conference on Machine Learning (ICML; 2025); International Conference on Learning Representations (ICLR; 2025); Machine Learning for Health (ML4H; 2021 – 2024); Neural Information Processing Systems (NeurIPS; 2024); NeurIPS Ethics Review (2023, 2024); NeurIPS Workshop on Machine Learning and the Physical Sciences (2019, 2020); Uncertainty in Artificial Intelligence (UAI; 2021, 2024, 2025)

Journal Reviewer: *Applied Artificial Intelligence*; *Applied Stochastic Models in Business and Industry*; *European Journal of Operational Research*; *Frontiers in Big Data – Data Mining and Management*; *GigaScience*; *Journal of Applied Econometrics*; *Journal of the Royal Statistical Society: Series C*; *PeerJ Computer Science*; *PLOS ONE*; *PLOS Neglected Tropical Diseases*; *Statistical Methods & Applications*; *Statistical Papers*; *Statistics and Public Policy*

invited talks

Department of Engineering & Public Policy, Carnegie Mellon University, March 2023

Dalla Lana School of Public Health, University of Toronto, February 2023

Brandeis International Business School, Brandeis University, December 2022

Modern Techniques in Survey Sampling, Canadian Statistical Sciences Institute, University of Ottawa, July 2022

Department of Mathematics, Université du Québec à Montréal, February 2022

Statistical Methods for Computational Advertising, Banff International Research Station, October 2021

conference talks

Causal Data Science Meeting (CDSM; 2021, 2022)

RAND Center for Causal Inference Symposium (2022)

Joint Statistical Meetings (JSM; 2021, 2022)

Political Institutions and Political Economy Collaborative, Bedrosian Center, University of Southern California (2021, 2022)

Society for Political Methodology (PolMeth; 2020, 2021; Europe, 2021, 2022; Asia, 2022)

Eastern North American Region International Biometric Society (ENAR; 2022)

Online Causal Inference Seminar (OCIS; 2021[†])

Big Data Meets Survey Science (BigSurv20; 2020)

Data Science, Statistics & Visualization (DSSV; 2020)

American Political Science Association (APSA; 2014[*], 2015, 2018[‡])

Midwest Political Science Association (MPSA; 2018)

[*]*poster*; [†]*discussant*; [‡]*paper & discussant*

teaching & mentoring

<u>Graduate Student Instructor:</u> Department of Political Science, University of California, Berkeley: Intro. to American Politics (undergrad), spring 2017 and spring 2018; Intro. to Empirical Analysis & Quantitative Methods (undergrad), fall 2018

<u>Research Mentor:</u> Undergraduate Research Apprentice Program (URAP), University of California, Berkeley, fall 2016 and spring 2017

grants and fellowships

<u>NSF Frontera Startup Allocation:</u> "RNN-Based Counterfactual Prediction on High-Dimensional Longitudinal Health Data" (SES20001), 2020-2021

<u>NSF XSEDE Startup Allocation:</u> "RNN-Based Counterfactual Time-Series Prediction" (SES180010), 2018-2019, 2020-2021

Berkeley Empirical Legal Studies Graduate Fellowship, University of California, Berkeley, School of Law, 2016-2017

National Science Foundation Graduate Research Fellowship, 2013-2018

other professional experience

Research Support Associate, Department of Political Science, MIT, 2011 - 2013

Research Assistant, Department of Economics, Harvard University, 2010 - 2011

Research Assistant, Harvard Kennedy School, Harvard University, 2009 - 2010

technical skills

Languages: R; Python; Bash; C/C++; UPC; SQL

Version Control: Git (GitHub); SVN

Frameworks & Libraries: PyTorch; TensorFlow; Keras; Open MPI

Operating Systems: Linux (CentOS, Ubuntu)