Jason Poulos

CONTACT

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PROFESSIONAL APPOINTMENTS

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

Duke University and **SAMSI**, Durham, NC
Postdoctoral Associate, Department of Statistical Science, 2019 – 2021
Postdoctoral Associate, SAMSI, 2019 – 2021

EDUCATION

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

University of Massachusetts, Amherst
B.A., Economics, 2008 (Phi Beta Kappa)

ARTICLES

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." Forthcoming, *Survey Methodology*.

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 (2021)."Amnesty Policy and Elite Persistence in the Postbellum South: Evidence from a Regression Discontinuity Design." Special issue on "Slavery and its Legacies," *Journal of Historical Political Economy*, 1(3): 353-375.

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 (2019). "Land Lotteries, Long-term Wealth, and Political Selection." *Public Choice*, 178(1): 217-230.

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

Manuscripts Under Review

"Adversarial Machine Learning: Bayesian Perspectives" (with David Rios Insua, Roi Naveiro, and Victor Gallego). arXiv:2003.03546.

"Retrospective Causal Inference via Matrix Completion, with an Evaluation of the Effect of European Integration on Labour Market Outcomes" (with Andrea Albanese, Fan Li, and Andrea Mercatanti). arXiv:2106.00788. IZA Discussion Paper No. 14472.

"State-Building through Public Land Disposal? An Application of Matrix Completion for Counterfactual Prediction." arXiv:1903.08028.

Invited Presentations

Summer School on Modern Techniques in Survey Sampling, University of Ottawa, July 2022

Political Institutions and Political Economy Collaborative, Bedrosian Center, University of Southern California, April 2021 and May 2022

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

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

Conference Presentations

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

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

Causal Data Science Meeting (CDSM, 2021)

Joint Statistical Meetings (JSM, 2021)

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*

Professional Service

Book Reviewer: Springer Mathematics

Conference Reviewer: Machine Learning for Health (ML4H, 2021); NeurIPS Workshop on Machine Learning and the Physical Sciences (2019, 2020); Uncertainty in Artificial Intelligence (UAI, 2021)

Journal Reviewer: ($>$ 1 papers) *Alexandria Engineering Journal*; *Applied Artificial Intelligence* (2); *Applied Sciences* (2); *Distributed and Parallel Databases*; *Economics & Politics*; *European Journal of Operational Research*; *Frontiers in*

Big Data – Data Mining and Management (2); *GigaScience*; *Journal of Applied Econometrics*; *Sensors*; *Statistical Methods & Applications*; *Statistics and Public Policy*

Grants and Fellowships

National Science Foundation Frontera Startup Allocation: "RNN-Based Counterfactual Prediction on High-Dimensional Longitudinal Health Data" (SES20001), 2020-2021

National Science Foundation XSEDE Startup Allocation: "RNN-Based Counterfactual Time-Series Prediction" (SES180010), 2018-2019, 2020-2021 ($2,172)

Berkeley Empirical Legal Studies Graduate Fellowship, University of California, Berkeley, School of Law, 2016-2017 ($1,000)

National Science Foundation Graduate Research Fellowship, 2013-2018

Teaching Interests

Applied Machine Learning; Causal Inference; Health Data Science

Teaching & Mentoring

Graduate Student Instructor, Department of Political Science,
University of California, Berkeley, 2017 - 2019

Introduction to American Politics (undergraduate) with Prof. Paul Pierson, spring 2017 and spring 2018

Introduction to Empirical Analysis & Quantitative Methods (undergraduate) with Prof. Andrew Little, fall 2018

Research Mentor, Undergraduate Research Apprentice Program (URAP),
University of California, Berkeley, fall 2016 and spring 2017

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 (expert); Python (moderate); bash (moderate); C/C++/UPC (novice)

VCS: git + github; SVN

Frameworks & libraries: TensorFlow; Keras; scikit-learn; Open MPI

Operating systems: Linux (CentOS; Ubuntu)