Jason Poulos

CONTACT Department of Health Care Policy

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Professional

Harvard Medical School, Boston, MA

Appointments 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)

PEER-REVIEWED 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*. arXiv:2103.09316.

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. arXiv:1712.03553.

Jason Poulos and Rafael Valle (2021). "Character-Based Handwritten Text Transcription with Attention Networks." *Neural Computing & Applications*, 33(16): 10563-10573. arXiv:1712.04046.

Kellie Ottoboni and **Jason Poulos** (2020). "Estimating Population Average Treatment Effects from Experiments with Noncompliance." *Journal of Causal Inference*, 8(1): 108-130. arXiv:1901.02991.

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. arXiv:1610.09075.

EDITOR-REVIEWED ARTICLES

Jason Poulos (2021). "Amnesty Policy and Elite Persistence in the Postbellum South: Evidence from a Regression Discontinuity Design." Special issue on "Slav-

ery and its Legacies," Journal of Historical Political Economy, 1(3): 353-375. arXiv:2103.14220.

Manuscripts Under Review

"Adversarial Machine Learning: Bayesian Perspectives" (with David Rios Insua, Roi Naveiro, and Víctor Gallego). Minor revisions requested, *Journal of the American Statistical Association – Reviews.* arXiv:2003.03546.

"Targeted Learning in Observational Studies with Multi-Level Treatments: An Evaluation of Antipsychotic Drug Treatment Safety" (with Marcela Horvitz-Lennon, Katya Zelevinsky, Thomas Huijskens, Pooja Tyagi, Jiaju Yan, Jordi Diaz, Tudor Cristea-Platon, and Sharon-Lise Normand). arXiv:2206.15367.

"Gender Gaps in Frontier Entrepreneurship? Evidence from 1901 Oklahoma Land Lottery Winners." Invited submission to *Journal of Historical Political Economy*. arXiv:2206.14922.

"State-Building through Public Land Disposal? An Application of Matrix Completion for Counterfactual Prediction." Revise & resubmit, *Statistics and Public Policy*. arXiv:1903.08028.

"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.

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

Causal Data Science Meeting (CDSM; 2021, 2022)

RAND Center for Causal Inference Symposium (2022)

Joint Statistical Meetings (JSM; 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

Professional Service

Book Reviewer: Springer Mathematics

<u>Conference Reviewer:</u> Artificial Intelligence and Statistics (AISTATS; 2023); Machine Learning for Health (ML4H; 2021, 2022); Neural Information Processing Systems (NeurIPS): Workshop on Machine Learning and the Physical Sciences (2019, 2020); Uncertainty in Artificial Intelligence (UAI; 2021)

Journal Reviewer: (> 1 papers) 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; Journal of the Royal Statistical Society: Series C; PLOS ONE; PLOS Neglected Tropical Diseases; 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 & 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 <u>Languages:</u> R (expert); Python (moderate); bash (moderate); C/C++/UPC (novice)

SKILLS VCS: git + github; SVN

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

Operating systems: Linux (CentOS; Ubuntu)

REFERENCES Prof. Sean Gailmard Prof. David Banks

(Dissertation chair) (Postdoc mentor)
Department of Political Science Department of Statistical Science

University of California, Berkeley

Duke University

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Prof. Fan Li
(Postdoc advisor)

Prof. Sharon-Lise Normand
(Postdoc advisor)

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