

# Jason Poulos

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- POSTDOCTORAL TRAINING** **Harvard Medical School**, Boston, MA  
Postdoctoral Fellow in Data Science, Department of Health Care Policy, 2021 –  
**Statistical and Applied Mathematical Sciences Institute (SAMSI)** and **Duke University**, Durham, NC  
Postdoctoral Associate, 2019 – 2021
- EDUCATION** **University of California, Berkeley**  
Ph.D., Political Science with a Designated Emphasis in Computational Science and Engineering, 2019  
M.A., Political Science, 2014  
**University of Massachusetts, Amherst**  
B.A., Economics (Phi Beta Kappa)
- PEER-REVIEWED ARTICLES** David Rios Insua, Roi Naveiro, Víctor Gallego, and **Jason Poulos** (2022+). “Adversarial Machine Learning: Bayesian Perspectives.” Minor revisions requested, *Journal of the American Statistical Association – Reviews*. [arXiv:2003.03546](https://arxiv.org/abs/2003.03546).  
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. [arXiv:2103.09316](https://arxiv.org/abs/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](https://arxiv.org/abs/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](https://arxiv.org/abs/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](https://arxiv.org/abs/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** (2023). “Gender Gaps in Frontier Entrepreneurship? Evidence from 1901 Oklahoma Land Lottery Winners.” Special issue on “The Development of the American West,” *Journal of Historical Political Economy*, 2(4): 611-634. [arXiv:2206.14922](#).

**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. [arXiv:2103.14220](#).

MANUSCRIPTS  
UNDER REVIEW

“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). Submitted. [arXiv:2206.15367](#).

“State-Building through Public Land Disposal? An Application of Matrix Completion for Counterfactual Prediction.” Revise & resubmit, *Statistics and Public Policy*. [arXiv:1903.08028](#).

INVITED  
PRESENTATIONS

Summer School on Modern Techniques in Survey Sampling, 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  
PRESENTATIONS

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<sup>†</sup>)

Big Data Meets Survey Science (BigSurv20; 2020)

Data Science, Statistics & Visualization (DSSV; 2020)

American Political Science Association (APSA; 2014<sup>\*</sup>, 2015, 2018<sup>‡</sup>)

Midwest Political Science Association (MPSA; 2018)

<sup>\*</sup>poster; <sup>†</sup>discussant; <sup>‡</sup>paper & discussant

#### 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; Scientific Programming

#### TEACHING & MENTORING

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

Intro. to American Politics (undergrad), spring 2017 and spring 2018

Intro. to Empirical Analysis & Quantitative Methods (undergrad), fall 2018

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

#### PROFESSIONAL SERVICE

Book Reviewer: Springer Mathematics

Conference Reviewer: Artificial Intelligence and Statistics (AISTATS; 2022); 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) *Alexandria Engineering Journal*; *Applied Artificial Intelligence* (3); *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*

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	<u>Languages:</u> R (expert); Python (moderate); bash (moderate); C/C++/UPC (novice)	
	<u>VCS:</u> git + github; SVN	
	<u>Frameworks &amp; libraries:</u> TensorFlow; Keras; scikit-learn; Open MPI	
	<u>Operating systems:</u> Linux (CentOS; Ubuntu)	
REFERENCES	Prof. Sean Gailmard (Dissertation chair) Department of Political Science University of California, Berkeley ☎ 510-642-4677 ✉ <a href="mailto:gailmard@berkeley.edu">gailmard@berkeley.edu</a>	Prof. Sharon-Lise Normand (Postdoc advisor) Department of Health Care Policy Harvard Medical School ☎ 617-432-3260 ✉ <a href="mailto:sharon@hcp.med.harvard.edu">sharon@hcp.med.harvard.edu</a>
	Prof. David Banks (Postdoc mentor) Department of Statistical Science Duke University ☎ 919-684-3743 ✉ <a href="mailto:dlbanks@stat.duke.edu">dlbanks@stat.duke.edu</a>	