Jason Poulos

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POSTDOCTORAL TRAINING

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

M.A., Political Science, 2014

University of Massachusetts, Amherst
B.A., Economics, 2008 (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.

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.

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.

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). 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.

EDITOR-REVIEWED ARTICLES	**Jason Poulos** (2022+). "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). 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.

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*

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	<u>Book Reviewer:</u> Springer Mathematics
	<u>Conference Reviewer:</u> 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)
	<u>Journal Reviewer:</u> (> 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*
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)

REFERENCES

Prof. Sean Gailmard
(Dissertation chair)
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University of California, Berkeley
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Prof. David Banks
(Postdoc mentor)
Department of Statistical Science
Duke University
☎ 919-684-3743
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Prof. Sharon-Lise Normand
(Postdoc advisor)
Department of Health Care Policy
Harvard Medical School
☎ 617-432-3260
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