### Jason Poulos

Department of Health Care Policy Contact

> Harvard Medical School 180 Longwood Avenue Boston, MA 02115-5821

■ poulos@berkeley.edu iasonvpoulos.com

github.com/jvpoulos

POSTDOCTORAL Harvard Medical School, Boston, MA

TRAINING Postdoctoral Fellow, Department of Health Care Policy, 2021 – 2023

Statistical and Applied Mathematical Sciences Institute, 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 (NSF Graduate Research Fellowship)

M.A., Political Science, 2014

#### Massachusetts Institute of Technology

Non-degree graduate coursework in Economics, 2011-2013

#### Harvard University

Non-degree graduate coursework in Economics, 2010

#### University of Massachusetts, Amherst

B.A., Economics (Phi Beta Kappa)

### Peer-Reviewed ARTICLES

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." Accepted, Psychological Medicine.

David Rios Insua, Roi Naveiro, Víctor Gallego, and Jason Poulos (2023). "Adversarial Machine Learning: Bayesian Perspectives." 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). Revise & resubmit, *Statistics in Medicine*. 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** (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.

#### 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\*, 2015, 2018‡)

Midwest Political Science Association (MPSA; 2018)

\*poster; †discussant; ‡paper & discussant

## GRANTS AND FELLOWSHIPS

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

NSF 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

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

<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)

Journal Reviewer: (> 1 papers) Alexandria Engineering Journal; Applied Artificial Intelligence (3); Applied Sciences (2); Applied Stochastic Models in Business and Industry; 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)

 $\underline{\text{VCS:}}$  git + github; SVN

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

Operating systems: Linux (CentOS; Ubuntu)

References

Prof. Sean Gailmard (Dissertation chair) Department of Political Science University of California, Berkeley

**a** 510-642-4677

⊠ gailmard@berkeley.edu

Prof. David Banks (Postdoc mentor) Department of Statistical Science Duke University **2** 919-684-3743

⊠ dlbanks@stat.duke.edu

Prof. Sharon-Lise Normand (Postdoc advisor) Department of Health Care Policy Harvard Medical School

**☎** 617-432-3260

 $\bowtie$  sharon@hcp.med.harvard.edu