Jason Poulos

Contact Department of Statistical Science

Duke University Box 90251

Durham, NC 27708

jason.poulos@duke.edujasonvpoulos.comgithub.com/jvpoulos

Professional

Duke University and SAMSI, Durham, NC

Appointments Postdoctoral Associate, Department of Statistical Science, August 2019 –

Postdoctoral Associate, SAMSI, August 2019 -

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, 2008

Refereed Articles

Jason Poulos and Rafael Valle (n.d.). "Character-Based Handwritten Text Transcription with Attention Networks'." Accepted, *Neural Computing & Applications*. 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

"RNN-Based Counterfactual Prediction, with an Application to Homestead Policy and Public Schooling" (with Shuxi Zeng). Minor revisions requested, *Journal of the Royal Statistical Society, Series C.* arXiv:1712.03553.

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

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

Manuscripts in Preparation

"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).

"Are Deep Learning Models Superior for Missing Data Imputation in Large Surveys?: Evidence from an Empirical Comparison" (with Olanrewaju Akande, Fan Li, and Zhenhua Wang).

"Reconstruction-Era Amnesty Policy and Elite Persistence in the Postbellum South."

GRANTS AND FELLOWSHIPS

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

PI, 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

OTHER PROFESSIONAL EXPERIENCE

Research Support Associate, Department of Political Science, Massachusetts Institute of Technology, 2011 - 2013

Research Assistant, Department of Economics, **Harvard University**, 2010 - 2011 Research Assistant, Harvard Kennedy School, **Harvard University**, 2009 - 2010

Conference & Workshop Presentations

International Conference on Advances in Interdisciplinary Statistics and Combinatorics (AISC), Oct. 2021

"Big Data Meets Survey Science" (${\bf BigSurv20})$ Conference, Nov. 2020

"Data Science, Statistics & Visualization" (\mathbf{DSSV}) Conference, July 2020

Society for Political Methodology (PolMeth), 2020

American Political Science Association (APSA), 2014 (poster), 2015, 2018

Midwest Political Science Association (MPSA), 2018

SERVICE

Journal Reviewer: Applied Artificial Intelligence; Distributed and Parallel Databases; Economics & Politics; European Journal of Operational Research; Statistics and Public Policy

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

Book Reviewer: Springer Mathematics

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

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)