A. Jordan Nafa

1-817-807-0035 @ adamjnafa@gmail.com

Education

UNIVERSITY OF NORTH TEXAS

PH.D. IN POLITICAL SCIENCE

Aug 2018 - Aug 2023 | Denton, TX

- Doctoral Candidacy, Aug 2021 (Master's of Science Equivalent)
- *Descriptive Representation and Democratic Legitimacy: A Multilevel Bayesian Analysis*

TEXAS WOMAN'S UNIVERSITY

BACHELOR OF SCIENCE IN GOVERNMENT

Aug 2014 - Aug 2018 | Denton, TX

Links

GitHub **ajnafa**
Linkedin **a-jordan-nafa**
Website **ajordannafa.com**

Relevant Coursework

GRADUATE

- Quantitative Research Methods
- Multiple Regression
- Maximum Likelihood Estimation
- Applied Bayesian Inference
- Item Response Theory
- Multilevel and Longitudinal Analysis
- Causal Inference

Skills

PROGRAMMING

R • Stan • Python • HTML/CSS • SQL • LaTeX

SOFTWARE

Git • Quarto • Microsoft Office • Stata • Tableau • Shiny

TECHNICAL

Statistical Modeling • Data Analysis • Time Series • Bayesian Inference • Experimental Design • Causal Inference • Machine Learning • Research Design • Predictive Modeling • Package Development • Data Cleaning

MISCELLANEOUS

Project Management • Teaching • Communication • Technical Writing

Experience

QUANTITATIVE SOCIAL SCIENTIST

UNIVERSITY OF NORTH TEXAS, DEPARTMENT OF POLITICAL SCIENCE

Aug 2018 – Present | Denton, TX

- Implemented efficiency tuning for Bayesian models to deliver increases in computational performance gains of up to 700%.
- Directing, writing, and analyzing quantitative studies using data from a variety of sources.
- Collaborating on a variety of scientific research projects focused on the development and application of Bayesian inference in the social sciences
- Consulting on aspects of research design, statistical analysis, data cleaning, scientific programming, and reproducibility.

TEACHING FELLOW

UNIVERSITY OF NORTH TEXAS, DEPARTMENT OF POLITICAL SCIENCE

Oct 2021 – Present | Denton, TX

- Wrote an R script to fully automate cross-platform data entry and reduce several hours of work to a few minutes.
- Designing and teaching undergraduate courses in applied Bayesian statistics and causal inference for political research.
- Making extensive use of data visualization tools in R and Python to distill and communicate complex topics to non-technical clients.

RESEARCH ASSISTANT

TEXAS WOMAN'S UNIVERSITY, DEPARTMENT OF HISTORY AND GOVERNMENT

Feb 2018 – Aug 2018 | Denton, TX

- Automated coding of text passages in reports from the Government Accountability Office for content analysis
- Performed text recognition and validation of U.S. Government documents using OCR tools

Recent Projects

TAKING UNCERTAINTY SERIOUSLY: BAYESIAN MARGINAL STRUCTURAL MODELS FOR CAUSAL INFERENCE

A. JORDAN NAFA AND ANDREW HEISS | JAN 2022 - PRESENT

We develop a Bayesian pseudo-likelihood estimation procedure to model and propagate uncertainty in propensity score based inverse probability weights for causal inference in the context of observational cross-sectional time series data. We introduce the IPWBayes R package which provides a flexible and computationally efficient implementation of our proposed method.

BEING LESS WRONG: BAYESIAN MODEL AVERAGED MARGINAL EFFECTS FOR POLITICAL RESEARCH

A. JORDAN NAFA | MAY 2022 - PRESENT

I propose the use of Bayesian Model Averaging and posterior stacking as principled and straightforward tools to account for uncertainty in model specification when estimating average marginal effects and probability contrasts in the social sciences. An implementation of the approach is provided in the marginaleffects R package with support for both single and multilevel extensions for models fit using the Stan interface brms.

References

- Professional references are available upon request