

Daniel Kent

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SKILLS

SOFTWARE R (5+ years) • Python (3+ years) • SQL (MySQL / SQLite) • Git • Unix / Bash • \LaTeX • Julia

QUANTITATIVE Machine Learning • Social Network Analysis • Causal Inference • Time Series Analysis • Bayesian Inference • Experimental Design • Generalized Linear Models and Regression • Probability Theory

PLATFORMS Cluster Computing • Linux • Google Cloud Platform • Amazon Web Services

EXPERIENCE

THE OHIO STATE UNIVERSITY

PH.D. CANDIDATE, POLITICAL SCIENCE

Columbus, OH

August 2015 – August 2020

Dissertation: Essays on Machine Learning in International Conflict and Social Networks

- Built machine learning ensembles in R with 800,000+ observations to forecast the onset of international conflict
- Developed a novel dataset with 15,925 estimates of every country's international standing from 1816-2012
- Applied causal forests to experiments in social networks in order to detect heterogeneous spillover effects

GRADUATE RESEARCH ASSOCIATE

August 2018 – August 2020

- Estimated social networks of over 400,000 Cold War bureaucrats by classifying matches in archival records
- Wrote R package, **dynamr**, returning 20% increase in changepoint detection accuracy over alternative software
- Awarded a \$20,000 grant, funded by the National Science Foundation for a nationwide survey experiment
- Collaborated on 4 research teams, coordinating with members across multiple countries and states

GRADUATE TEACHING ASSOCIATE

July 2019, August 2020

- Taught graduate-level mathematics course for 15 incoming Ph.D. students, with an emphasis on applied statistics
- Instructed on 45 topics from calculus (derivatives, integrals, and multivariate), linear algebra, and set notation
- Compiled a 50-page set of extensive course notes for students to reference during future statistics coursework

JUNIOR PRISM FELLOW

July 2017 – August 2018

- Served in faculty-awarded position, held by one graduate student each year based on coursework performance
- Provided statistics consulting for faculty and students, solving data, programming, and modeling problems
- Spearheaded 4 data science training workshops and guest lectures throughout the academic year

RESEARCH

- [1] Daniel Kent, Skyler J. Cranmer, and James D. Wilson. *A Permutation-Based Changepoint Technique for Monitoring Effect Sizes*. Conditionally Accepted at *Political Analysis*.
- [2] Daniel Silverman, Daniel Kent, and Christopher Gelpi. *Putting Terror in its Place: An Experiment on Mitigating Fears of Terrorism Among the American Public*. Under Review.
- [3] J. Andres Gannon and Daniel Kent. *Keeping Your Friends Close, But Acquaintances Closer: Why Weakly Allied States Make Committed Coalition Partners*. Conditionally Accepted at *Journal of Conflict Resolution*.

EDUCATION

THE OHIO STATE UNIVERSITY

PH.D., POLITICAL SCIENCE (Focus on Computational Social Science)

M.A., POLITICAL SCIENCE

Columbus, OH

August 2020

May 2017

UNIVERSITY OF CALIFORNIA, DAVIS

B.A., INTERNATIONAL RELATIONS (Highest Honors)

Davis, CA

June 2013