

# Daniel Kent

Columbus, Ohio

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## SKILLS

**SOFTWARE** R (5+ years) • Python (3+ years) • SQL (MySQL) • Git • Unix •  $\text{\LaTeX}$  • Julia • JavaScript (D3.JS)

**QUANTITATIVE** Machine Learning • Social Network Analysis • Causal Inference • Time Series Analysis • Bayesian Inference • Natural Language Processing • Generalized Linear Models • Probability Theory

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

## EXPERIENCE

### THE OHIO STATE UNIVERSITY

PH.D. CANDIDATE, POLITICAL SCIENCE

Columbus, OH

August 2015 – Present

Dissertation: *Supervised and Unsupervised Models of International Conflict and Revision*

- Built machine learning ensembles in R with 800,000+ observations to forecast the onset of international conflict
- Developed a novel dataset with 15,974 estimates of every country's international standing from 1816-2012
- Programmed computational model in Python, simulating exclusion across complex social systems

### GRADUATE RESEARCH ASSOCIATE

August 2018 – Present

- Estimated social networks of over 400,000 Cold War bureaucrats by classifying matches in archival records
- Designed method to forecast civil wars (1945-2012), monitoring XGBoost features for anomalies
- 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

- 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 Technique for Monitoring Effect Sizes*. Invited to Revise and Resubmit 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*. Invited to Revise and Resubmit at *Journal of Conflict Resolution*.

## EDUCATION

### THE OHIO STATE UNIVERSITY

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

Columbus, OH

(Expected) August 2020

M.A., POLITICAL SCIENCE

May 2017

### UNIVERSITY OF CALIFORNIA, DAVIS

B.A., INTERNATIONAL RELATIONS (Highest Honors)

Davis, CA

June 2013