

# Daniel Kent

Walnut Creek, CA

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## EDUCATION

### THE OHIO STATE UNIVERSITY PH.D. IN POLITICAL SCIENCE (FOCUS ON COMPUTATIONAL SOCIAL SCIENCE)

August 2020 | Columbus, OH

### M.A., POLITICAL SCIENCE

May 2017 | Columbus, OH

### UC DAVIS

### B.A., INTERNATIONAL RELATIONS (HIGHEST HONORS)

June 2013 | Davis, CA

## SKILLS

### PROGRAMMING

Python (numpy, pandas, scipy, matplotlib, seaborn, scikit-learn, statsmodels) • R (dplyr, tidyr, purrr, ggplot2, caret) • H2O • SQL (MySQL, SQLite) • Git • Unix

### COMPUTATIONAL

Amazon Web Services • Google Cloud Platform • Cluster Computing • Shell Scripting • Apache Spark

## RELEVANT COURSES

### PROFESSIONAL

Data Science With Python

### GRADUATE

Experimental & Survey Design  
Machine Learning  
Causal Inference  
Social Network Analysis  
Bayesian Statistics  
Time Series Analysis  
Generalized Linear Models  
Probability Theory  
Math for Political Scientists  
Game Theory  
Agent-Based Models

### UNDERGRADUATE

Calculus I (Derivatives)  
Calculus II (Integrals)  
Calculus III (Multivariate)  
Probability & Statistical Inference  
Applied Regression

## PROFESSIONAL EXPERIENCE

### THE OHIO STATE UNIVERSITY | GRADUATE RESEARCH ASSOCIATE

August 2016 – August 2020 | Columbus, OH

- Secured over \$50,000 in external funding through the National Science Foundation for a nationwide survey experiment, Mershon Center for International Security, and Ohio State Decision Sciences Collaborative
- Data analyst for multiple collaborative quantitative research projects, resulting in 3 academic manuscripts and 10 conference presentations
- Wrote novel R package, **dynamr**, returning 20% increase in changepoint detection accuracy over alternative software
- Taught graduate-level mathematics course for 15 incoming Ph.D. students on calculus, linear algebra, probability, and R programming

### JUNIOR FELLOW, PROGRAM IN STATISTICS AND METHODOLOGY

August 2017 – July 2018 | Columbus, OH

- Provided statistics consulting for faculty and students, solving data, programming, and modeling problems in a faculty-awarded position
- Led and hosted 4 data science training workshops and visiting guest lectures throughout the academic year

### UC DAVIS GLOBAL STUDY PROGRAM | PROGRAM REPRESENTATIVE

June 2013 – August 2015 | Davis, CA

- Advised and organized special events for over 1,000 international students from 15+ countries and 4 continents studying abroad at UC Davis
- Coordinated student health insurance enrollment, tuition billing and payment, housing logistics, and academic transcripts

## SELECTED PROJECTS

### DISSERTATION | ESSAYS ON MACHINE LEARNING IN INTERNATIONAL POLITICS AND SOCIAL NETWORKS

- Built machine learning ensembles with 800,000+ observations to forecast the onset of international conflict using random forests, gradient boosting machines, and regularized regressions on H2O statistical software
- Developed a novel statistical feature with 15,925 estimates of every country's international standing from 1816-2012

### PUTTING TERROR IN ITS PLACE: AN EXPERIMENT ON MITIGATING FEARS OF TERRORISM AMONG THE AMERICAN PUBLIC

With Daniel Silverman and Christopher Gelpi

- Designed, implemented, and analyzed a nationwide survey experiment measuring the causal effect of information about terrorism's risks
- 2,500 participants were surveyed on NORC's AmeriSpeak and Amazon's MTurk platforms, with a follow-up two weeks after treatment

### A PERMUTATION-BASED CHANGEPOINT TECHNIQUE FOR MONITORING EFFECT SIZES

Accepted at Political Analysis | With James Wilson and Skyler Cranmer

- Developed a statistical procedure for detecting coefficient changepoints in regressions estimated using time series cross-sectional data
- Technique estimates time-invariant behavior through permutation inference and detects changes with statistical process monitoring