

# Daniel Kent

Walnut Creek, CA

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## SKILLS

**LANGUAGES** Python (3+ years) • R (5+ years) • SQL (MySQL / SQLite)

**TOOLS** pandas • scikit-learn • statsmodels • numpy • scipy • matplotlib • seaborn • plotly • Git • Amazon Web Services • Apache Spark • cluster computing • H2O • caret • dplyr • tidyr • purrr • ggplot2 • Linux/Unix

**MACHINE LEARNING AND STATISTICS** supervised and unsupervised learning (neural networks, random forests, gradient boosting machines, regularized regression, KNN, SVM, PCA, K-Means) • causal inference • generalized linear models • experimental design • network analysis • time series analysis • Bayesian inference • hypothesis testing

## PROFESSIONAL EXPERIENCE

### GRADUATE RESEARCH ASSOCIATE

POLITICAL SCIENCE | THE OHIO STATE UNIVERSITY

August 2016 – August 2020

- Developed machine learning approaches for forecasting international conflicts and estimating network effects
- Trained stacked ensemble as a meta learner, using a random forest, gradient boosting machine, and regularized regression as base learners on a data set with 800,000+ observations and 40+ features
- Engineered a novel statistical feature with 16,000 estimates of every country's international standing, 1816-2012
- 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
- Designed, implemented, and estimated causal effects on a nationwide survey experiment with 2,500 participants
- Wrote novel R package, **dynamr**, returning 20% increase in changepoint detection accuracy over existing software

### JUNIOR FELLOW, PROGRAM IN STATISTICS AND METHODOLOGY

POLITICAL SCIENCE | THE OHIO STATE UNIVERSITY

August 2017 – July 2018

- Served as research consultant for 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

### PROGRAM REPRESENTATIVE

GLOBAL STUDY PROGRAM | UC DAVIS

June 2013 – August 2015

- Advised and coordinated student tuition, health services, housing, and transcripts for over 1,000 international students from 15+ countries and 4 continents studying abroad at UC Davis
- Billed and tracked over \$15,000,000 in student tuition and health insurance enrollments payments

## PROJECTS

- [1] Daniel Kent, Skyler J. Cranmer, and James D. Wilson. *A Permutation-Based Changepoint Technique for Monitoring Effect Sizes*. Forthcoming 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*. 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