

Daniel Kent

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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
- Forecasted international conflicts with a stacked ensemble trained on a random forest, gradient boosting machine, and regularized regression as base learners, using 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 research funding for projects through the National Science Foundation, 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 enrollment 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*. Forthcoming 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