

# Daniel Kent

San Francisco, CA

✉ dnkent24@gmail.com | ☎ 925.818.9866 | 🌐 dnkent.github.io | 🐙 dnkent | 🌐 dnkent

## SKILLS

**LANGUAGES** Python (4+ years) • R (6+ years) • SQL (BigQuery / Microsoft SQL Server / Oracle SQL Developer)

**TOOLS & LIBRARIES** pandas • numpy • scikit-learn • statsmodels • scipy • matplotlib • seaborn • Git/GitHub • Google Cloud Computing • Apache Spark • xgboost • H2O • caret • tidyverse • ggplot2 • Linux/Unix

**MACHINE LEARNING AND STATISTICS** supervised and unsupervised learning (regularized regression, random forests, gradient boosting machines, neural networks, KNN, SVM, PCA, k-means) • causal inference (matching, regression discontinuity designs, difference-in-differences, instrumental variables, heterogeneous treatment effects) • experimental design & A/B testing • generalized linear models • time series analysis • Bayesian statistics

## PROFESSIONAL EXPERIENCE

### DATA SCIENTIST

#### KAISER PERMANENTE PREDICTIVE ANALYTICS AND MODELING

January 2021 – Present

- Responsible for three data science pipelines that inform account management decisions in a strategic marketplace
- Currently monitoring two machine learning models in production and developing a recommendation engine approach for prescribing optimal repositioning strategies to grow membership in accounts across California
- Co-lead monthly updates of an application with data on over 16,000 accounts and 6,500,000 members
- Revamped model in production for forecasting when accounts are at-risk of terminating with Kaiser Permanente, producing a 14% increase in overall accuracy, 15% decrease in false positives, and 10% decrease in false negatives

### GRADUATE RESEARCH ASSOCIATE

#### THE OHIO STATE UNIVERSITY DEPARTMENT OF POLITICAL SCIENCE

August 2016 – August 2020

- Forecasted international conflicts in dissertation with a stacked ensemble trained on 800,000+ observations
- Estimated causal effects regarding public opinion toward foreign policy in a 2,500 participant survey experiment
- Secured over \$50,000 in research funding through the National Science Foundation and Ohio State University
- Wrote novel R package, **dynamr**, returning 20% increase in changepoint detection accuracy over existing software
- Served as research consultant for data, programming, and modeling problems in a faculty-awarded position

### PROGRAM REPRESENTATIVE

#### UC DAVIS GLOBAL STUDY PROGRAM

June 2013 – August 2015

- Advised and coordinated tuition, healthcare, and housing for over 1,000 international students at UC Davis
- Billed and tracked over \$15,000,000 in student tuition and health insurance enrollment payments

## PUBLICATIONS

- [1] Daniel Kent, Skyler J. Cranmer, and James D. Wilson. *A Permutation-Based Changepoint Technique for Monitoring Effect Sizes*. *Political Analysis*, 1-12. doi:10.1017/pan.2020.44.
- [2] Daniel Silverman, Daniel Kent, and Christopher Gelpi. *Putting Terror in its Place: An Experiment on Mitigating Fears of Terrorism Among the American Public*. Accepted at *Journal of Conflict Resolution*.
- [3] J. Andres Gannon and Daniel Kent. *Why Weakly Allied States Make Committed Coalition Partners*. *Journal of Conflict Resolution*, 65(5), 889–918. doi:10.1177/0022002720978800.

## 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