Bertrand Wilden

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Education

PhD Political Science (UC San Diego) 2019 –

MA Political Science (UC San Diego) 2021

BA Political Science, *summa cum laude* (UC San Diego) 2018

AA (Los Angeles Harbor College) 2016

Research Interests

Ethics in AI/Machine Learning · Bayesian Modeling · Causal Inference · Race and Ethnic Politics

Current Projects

Improved Bayesian Ethnorace Prediction. I develop a method for imputing individual level race/ethnicity using Bayes' Rule. When validated against self-reported race/ethnicity, my method vastly out-performs existing methods across a wide range of predictive metrics. I demonstrate that my method uncovers substantively-large racial disparities in real world applications that are not apparent when using predictions from older methods. Implementation is made easy by an open source software package in `R` https://github.com/bwilden/bper

Interest Group Ideal Points, with Nhat-Dang Do. We estimate latent political ideology scores for interest groups lobbying in the California state legislature using a bespoke hierarchical Bayesian item-response theory model. We incorporate the latest modeling techniques from the Bayesian statistics literature to improve accuracy and validity of our results relative to previous ideal point estimation methods.

A Constitutive Causal Theory of Race. Most social science research purporting to examine the effect of one's race on an outcome implicitly uses a theoretically incoherent understanding of race. Under the widely-accepted constructivist understand of race, it is impossible to isolate the "effect" of race as required by classic counterfactual causal inference paradigms. In this project I critique existing quantitative methods using race and offer an alternative framework which incorporates race's constitutive elements. These constitutive elements are identified empirically using a structural learning algorithm to find the Markov Blanket surrounding the race variable in a particular data set.

Software Packages

`bper`: Bayesian Prediction for Ethnicity and Race https://github.com/bwilden/bper

Teaching

Discussion Section Leader

Big Data Analytics (*graduate level*)
Data cleaning; Ethics in AI; Machine learning model fitting and validation
Quantitative Methods (*graduate level*)
Data cleaning; Hypothesis testing; Regression analysis; Lab Code
Machine Learning for Social Sciences
Machine learning model fitting and validation

Grader

Senior Honors Seminar; Algorithms, Public Policy, and Ethics; British Politics; Political Inquiry (x2); Voting Rights Act 50 Years Later; Quant Analysis/Congress Politics; European Integration

Research Assistance

Replication of *The Political Consequences of External Economic Shocks: Evidence from Poland* (2020). John Ahlquist, Mark Copelovitch, Stefanie Walter. https://doi.org/10.1111/ajps.12503

Center for Commerce & Diplomacy (UC San Diego) 2020

Languages

R, Python, LaTeX, Stata