

Eli Ben-Michael

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EDUCATION

University of California, Berkeley, Berkeley, CA Expected 2021
PhD in Statistics, Advisors: Avi Feller and Peng Ding

Columbia University, Columbia College, New York, NY May 2016
Bachelor of Arts, *Summa Cum Laude*, Computer Science and Statistics

PUBLISHED ARTICLES

Elser, H., **E. Ben-Michael**, D. Rehkopf, S. Modrek, E. A. Eisen, and M. R. Cullen (2019). Layoffs and the mental health and safety of remaining workers: a difference-in-differences analysis of the US aluminium industry. *Journal of Epidemiology and Community Health* 73, 1094–1100

PREPRINTS AND WORKING PAPERS

Ben-Michael, E., A. Feller, and J. Rothstein (2019). Synthetic controls and weighted event studies with staggered adoption

Ben-Michael, E., A. Feller, and J. Rothstein (2019). The augmented synthetic control method

OPEN SOURCE STATISTICAL SOFTWARE

[augsynth](#): R implementation of the augmented synthetic control method

PRESENTATIONS

Synthetic control and weighted event study models with staggered adoption November 2019
Berkeley-Stanford Econometrics Jamboree

Augmented Panel Data Models with Staggered Adoption May 2019
Atlantic Causal Inference Conference
Thomas R. Ten Have Poster Award runner up

Multi-level balancing weights for multi-site observational studies March 2019
Society for Research on Educational Effectiveness

The augmented synthetic control method December 2018
2018 European Winter Meeting of the Econometric Society

Matrix constraints and multi-task learning for covariate balance August 2018
7th Causal Inference Workshop at UAI

AWARDS AND HONORS

Department fellowship, Department of Statistics, U.C. Berkeley 2018
Two years of funding through RTG grant: Advancing Machine Learning - Causality and Interpretability

Phi Beta Kappa, Columbia University 2016

Computer Science Department Award, Columbia University 2016
Given to the top two graduating seniors each year

TEACHING

U.C. Berkeley Department of Statistics *Graduate Student Instructor*
Stat 232: Experimental Design with Sam Pimentel Fall 2018
Stat 159/259: Reproducible and Collaborative Data Science with Fernando Perez Fall 2017

INSTITUTIONAL SERVICE

PhD admissions committee, Department of Statistics, UC Berkeley Spring 2020
Co-president of the Berkeley Statistics Graduate Student Association Fall 2018 - Spring 2019
Review for *Journal of Causal Inference*, and *Journal of Applied Econometrics*

WORK EXPERIENCE

Uber, New York, NY Summer 2019
Data Science Intern

- Built spatiotemporal models for feature extraction to enhance predictions in dispatch decisions
- Utilized factor analysis and auto-encoding neural networks to learn embeddings of ride behavior
- Created procedures to quickly isolate predictive contribution of features in black box models

Walmart Labs, Sunnyvale, CA Summer 2017
Machine Learning Scientist Intern

- Designed models of consumer purchase behavior to learn latent representations of products
- Implemented efficient learning algorithms on tens of millions of consumer purchases with Spark
- Validated the representations' predictive power by reconstructing a human-generated catalog

Knewton, New York, NY Summer 2016
Data Science Intern

- Generalized Bayesian models of student learning to incorporate hierarchical structure
- Scaled learning algorithms with a 10x speedup using Spark
- Analyzed performance, strengths, and weaknesses of models on student data

Columbia University Department of Economics, New York, NY Fall 2014 - Spring 2016
Research Assistant

- Built a natural language processing text analysis application in Python for use by economists
- Performed econometric and statistical analysis on text data with associated metadata