Eli Ben-Michael

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EDUCATION

University of California, Berkeley, Berkeley, CA   Expected 2020
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., **Ben-Michael, E.**, 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 control and weighted event study models 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 *Berkeley-Stanford Econometrics Jamboree*	November 2019
Augmented Panel Data Models with Staggered Adoption *Atlantic Causal Inference Conference* Thomas R. Ten Have Poster Award runner up	May 2019
Multi-level balancing weights for multi-site observational studies *Society for Research on Educational Effectiveness*	March 2019
The augmented synthetic control method *2018 European Winter Meeting of the Econometric Society*	December 2018
Matrix constraints and multi-task learning for covariate balance *7th Causal Inference Workshop at UAI*	August 2018

AWARDS AND HONORS

Department fellowship, Department of Statistics, U.C. Berkeley Two years of funding through RTG grant: Advancing Machine Learning - Causality and Interpretability	2018
Phi Beta Kappa, Columbia University	2016
Computer Science Department Award, Columbia University Given to the top two graduating seniors each year	2016

TEACHING

U.C. Berkeley Department of Statistics *Graduate Student Instructor*

Stat 232: Experimental Design with Sam Pimentel	Fall 2017
Stat 159/259: Reproducible and Collaborative Data Science with Fernando Perez	Fall 2018

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

INSTITUTIONAL SERVICE

Co-president of the Statistics Graduate Student Association   Fall 2018 - Spring 2019