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 (2020). Variation in impacts of letters of recommendation on college admissions decisions: Approximate balancing weights for treatment effect heterogeneity in observational studies

Ben-Michael, E., A. Feller, and E. Stuart (2020). A trial emulation approach for policy evaluations with group-level longitudinal data

Keele, L., **E. Ben-Michael**, A. Feller, R. Kelz, and L. Miratrix (2020). Hospital quality risk standardization via approximate balancing weights

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

Varying impacts of letters of recommendation on college admissions
  Annual Meeting of the Society for Political Methodology   July 2020

Synthetic control and weighted event study models with staggered adoption
  Online Causal Inference Seminar   September 2020
  Econometric Society World Congress   August 2020
  Joint Statistical Meetings (SFASA Student Travel Award winner)   August 2020
  Berkeley-Stanford Econometrics Jamboree   November 2019
  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   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

Reviewer for *Econometrica*, *Journal of the American Statistical Association*, *Annals of Applied Statistics*, *Journal of Educational and Behavioral Statistics*, *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