Eric Potash

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EXPERIENCE	**University of Illinois Urbana-Champaign** Research Scientist, Institute of Sustainability, Energy, and Environment	2020–Now
	University of Chicago Postdoctoral Scholar (Advisor: Dan Black), Harris School of Public Policy	2017–2020
EDUCATION	**Northwestern University** Ph.D. Mathematics (Advisor: Steve Zelditch) Dissertation: Euclidean Embeddings and Riemannian Bergman Metrics	2009–2014
	Columbia University B.A. Mathematics with Honors, Columbia College Thesis: An Application of Poincaré's Fundamental Polyhedron Theorem	2005–2009

PUBLICATIONS

How to estimate soil organic carbon stocks of agricultural fields? Perspectives using ex-ante evaluation
Geoderma 411, 115693 (2022).
E. Potash, K. Guan, A Margenot, DK Lee, E DeLucia, S Wang, C Jang

A Bayesian Approach to Recreational Water Quality Model Validation and Comparison in the Presence of Measurement Error
Water Resources Research, e2021WR031115 (2022).
E. Potash and S. Steinschneider

Algorithmic Fairness: Choices, Assumptions, and Definitions
Annual Reviews of Statistics 8, 2021.
S. Mitchell, **E. Potash**, S. Barocas, A. D'Amour, K. Lum

Validation of a Machine Learning Model to Predict Childhood Lead Poisoning
JAMA Network Open 3 (9), e2012734-e2012734
E. Potash, R. Ghani, J. Walsh, E. Jorgensen, C. Lohff, N. Prachand, R. Mansour

Randomization Bias in Field Trials to Evaluate Targeting Methods
Economics Letters, Volume 167, June 2018, Pages 131–135.
E. Potash

Predictive Modeling for Public Health: Childhood Lead Poisoning
21st ACM SIGKDD Proceedings
E. Potash, J. Brew, A. Loewi, S. Majumdar, A. Reece, J. Walsh, E. Rozier, E. Jorgensen, R. Mansour, R. Ghani

Euclidean Embeddings and Riemannian Bergman Metrics
The Journal of Geometric Analysis, January 2016, Volume 26, Issue 1, pp 499-528
E. Potash

OTHER WRITING

Why It's So Hard to Find Out Where the Candidates Stand
Washington Monthly, November 2016

INVITED TALKS

Environmental Policy Institute at Chicago (EPIC) Workshop
Can Health Departments Prevent Childhood Lead Poisoning?, 5/15/2018

EPA Research and Development "Science at Work" Seminar
Proactive Lead Investigations, 4/12/2017

City Bureau Public Forum
Lead Poisoning Panel Speaker, 3/13/2017

American Public Health Association Annual Meeting
Predictive Analytics in Advancing Public Health Session, 11/3/2015

Bloomberg Data for Good Exchange
Predictive Modeling for Public Health: Childhood Lead Poisoning, 9/30/2015

ACM Knowledge Discovery and Data Mining (KDD) Annual Conference
Predictive Modeling for Public Health: Childhood Lead Poisoning, 8/12/2015

CONFERENCE PRESENTATIONS	**Predicting Soil Organic Carbon Variability with Applications for Sampling Design** American Geophysical Union Fall Meeting 2022, Chicago, IL, December 2022 **A Bayesian Approach to Recreational Water Quality Model Validation and Comparison in the Presence of Measurement Error** American Geophysical Union Fall Meeting 2022, Chicago, IL, December 2022
REVIEWER	Geoderma, Environmental Science and Technology, JAMA Network Open, Earth and Space Science
GRANTS	**Collecting and Sharing Information across Sectors in Chicago and Illinois to Identify Children at Risk for Lead Poisoning**. Robert Wood Johnson Foundation. With Rayid Ghani, Raed Mansour, Matthew Roberts, John DiCello, Tom Schenk, Illinois Department of Human Services, and Alliance of Chicago. Grant ID 73354. $200,000.

INDUSTRY EXPERIENCE	**University of Chicago** Research Professional II, Center for Data Science and Public Policy	2014–2017
	Eric and Wendy Schmidt Data Science for Social Good Technical Mentor	Summer 2016
	Open Energy Efficiency Meter (openeemeter.org) Data Scientist	2015
	Oroeco (oroeco.com) Scientific Software Engineer	2014
TEACHING	**University of Chicago** Mutlilevel Regression Modeling for Public Policy (Winter 2020) Introduction to Program Evaluation (Spring 2019, Winter 2020) Introduction to Programming for Public Policy (Spring 2018, 2016)	2016-2020
	Northwestern University Assistant: Probability & Stochastic Processes, Mechanics, Real Analysis	2008–2013
SKILLS	Python (numpy, scipy, pandas, sklearn, matplotlib) R (tidyverse, rstanarm) SQL (PostgreSQL), Java, JavaScript (D3.js), Ruby (on Rails) Geospatial (PostGIS, GDAL, OpenStreetMap, Mapnik, QGIS, Leaflet) git, bash, GNU/Linux, LaTeX Fluent in Russian	

REFERENCES

- Dan Black, danblack@uchicago.edu
  Professor, Harris School of Public Policy, University of Chicago

- Shira Mitchell, sam942@mail.harvard.edu
  Statistician, Civis Analytics

- Emile Jorgensen, Emile.Jorgensen@cityofchicago.org
  Epidemiologist, Chicago Department of Public Health