eric@k2co3.net / k2co3.net / github.com/potash

EXPERIENCE University of Illinois Urbana-Champaign 2020-Now Research Scientist, Institute of Sustainability, Energy, and Environment

University of Chicago 2017-2020
Postdoctoral Scholar (Advisor: Dan Black), Harris School of Public Policy

EDUCATION Northwestern University 2009–2014

Ph.D. Mathematics (Advisor: Steve Zelditch)

Dissertation: Euclidean Embeddings and Riemannian Bergman Metrics

Columbia University 2005–2009

B.A. Mathematics with Honors, Columbia College

Thesis: An Application of Poincaré's Fundamental Polyhedron Theorem

Publications How to estimate soil organic carbon stocks of agricultural fields?

Perspectives using ex-ante evaluation

To appear, Geoderma, 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

To appear, Water Resources Research, 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
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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

REVIEWER Environmental Science and Technology, JAMA Network Open

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.

University of Chicago 2014–2017

EXPERIENCE Research Professional II, Center for Data Science and Public Policy

Eric and Wendy Schmidt Data Science for Social Good Summer 2016

Technical Mentor

Open Energy Efficiency Meter (openeemeter.org) 2015

Data Scientist

Oroeco (oroeco.com)

Scientific Software Engineer

Teaching University of Chicago 2016-2020

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)

Northwestern University 2008–2013

Assistant: Probability & Stochastic Processes, Mechanics, Real Analysis

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

Industry

• 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