epotash@uchicago.edu / k2co3.net / github.com/potash

EXPERIENCE University of Chicago 2017-Now

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 Algorithmic Fairness: Choices, Assumptions, and Definitions

To appear in Annual Reviews of Statistics, 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

WORKING PAPERS A Bayesian Approach to Recreational Water Quality Modeling and

Cross Validation in the Presence of Measurement Error

Submitted.

E. Potash and S. Steinschneider

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

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

2014 - 2017

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)

2014

Scientific Software Engineer

Teaching

### University of Chicago

2016-Now

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

- 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