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

EXPERIENCE

University of Chicago

2017-Now

Postdoctoral Scholar, Harris School of Public Policy

• Policy analysis of lead poisoning prevention programs for the Chicago Department of Public Health

University of Chicago

2014-2017

Research Professional II, Center for Data Science and Public Policy

- Predictive modeling of lead poisoning for the Chicago Department of Public Health
- Predictive modeling of hazardous waste violations for the U.S. Environmental Protection Agency and New York State Department of Environmental Conservation

Eric and Wendy Schmidt Data Science for Social Good

Summer 2016

Technical Mentor

• Mentored graduate students in analysis and development of data science solutions for public policy problems.

University of Chicago

Winter 2016

Lecturer, Harris School of Public Policy

• Computation for Public Policy graduate course

Open Energy Efficiency Meter (openeemeter.org)

2015

Data Scientist

Statistical learning of residential energy consumption baselining and forecasting.

Eric and Wendy Schmidt Data Science for Social Good

Summer 2014

Summer Fellow

- Modeling maternal health outcomes for the government of Mexico.
- Electricity load disaggregation for Pecan Street Research Institute.

Oroeco (oroeco.com)

2014

Scientific Software Engineer

Collecting data and building carbon footprint models and visualizations.

Northwestern University

2008-2013

Teaching Assistant: Probability & Stochastic Processes, Mechanics, Real Analysis

EDUCATION

Northwestern University

2009-2014

Ph.D. Mathematics

Dissertation: Euclidean Embeddings and Riemannian Bergman Metrics

Advisor: Steve Zelditch

Columbia University

2005-2009

B.A. Mathematics with Honors, Columbia College Class of 2009

Thesis: An Application of Poincaré's Fundamental Polyhedron Theorem

Publications

Randomization Bias in Field Trials to Evaluate Targeting Methods

Forthcoming, Economics Letters.

Predictive Modeling for Public Health: Childhood Lead Poisoning

21st ACM SIGKDD Proceedings

Why Its So Hard to Find Out Where the Candidates Stand

Washington Monthly, November 2016

The Journal of Geometric Analysis, January 2016, Volume 26, Issue 1, pp 499-528

An Asymptotic for the Representation of Integers as Sums of Triangular Numbers

Involve 1 (2008), no. 1, p. 111-121. (with A. Atanasov, R. Bellovin, I. Loughman-Pawelko and L. Peskin)

INVITED TALKS

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.

Volunteer

Habitat 2030

2013-Now

Chicago-area ecological habitat restoration and stewardship.

Open Source Ecology

2011-Now

Building and documenting an open source compressed earth brick press and sustainable, modular, low-cost house.

SKILLS

Python (numpy, scipy, pandas, sklearn, matplotlib) SQL (PostgreSQL), Java, JavaScript (D3.js), Ruby (on Rails)

Geospatial (PostGIS, GDAL, OpenStreetMap, Mapnik, QGIS, Leaflet)

git, bash, GNU/Linux, LATEX

Probability, Causal Inference, Differential Geometry, Partial Differential Equations

Fluent in Russian

References

- Matt Gee, mattgee@gmail.com Research Fellow, Urban Center for Computation and Data
- Emile Jorgensen, Emile.Jorgensen@cityofchicago.org
 Epidemiologist, Chicago Department of Public Health
- Rayid Ghani, rayid@uchicago.edu Research Director, Computation Institute, University of Chicago
- Steve Zelditch, s-zelditch@northwestern.edu Wayne and Elizabeth Jones Professor of Mathematics, Northwestern University