

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	Think outside the plots: Perimeter measurements and spatial modeling mitigate confounding in a 145-year experiment <i>Agricultural & Environmental Letters</i> (2025). E Potash , Y Nakayama, M Douglass, G Gonzalez, A Margenot	
	Measure-and-remeasure as an economically feasible approach to crediting soil organic carbon at scale <i>Environmental Research Letters</i> 20 (2025) 024025. E Potash , MA Bradford, EE Oldfield, K Guan	
	Multi-site evaluation of stratified and balanced sampling of soil organic carbon stocks in agricultural fields <i>Geoderma</i> 438, 116587 (2023). E Potash , et al.	
	How to estimate soil organic carbon stocks of agricultural fields? Perspectives using ex-ante evaluation <i>Geoderma</i> 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 <i>Water Resources Research</i> , e2021WR031115 (2022). E Potash and S Steinschneider	
	Algorithmic Fairness: Choices, Assumptions, and Definitions <i>Annual Reviews of Statistics</i> 8, 2021. S Mitchell, E Potash , S Barocas, A D’Amour, K Lum	
	Validation of a Machine Learning Model to Predict Childhood Lead Poisoning <i>JAMA Network Open</i> 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 <i>Economics Letters</i> , Volume 167, June 2018, Pages 131–135. E Potash	

Predictive Modeling for Public Health: Childhood Lead Poisoning

21st ACM SIGKDD Proceedings

E Potash, et al.

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

Soil Science Society of America Annual Meeting

Measure-and-remeasure of soil organic carbon at scale, 11/11/2024

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, CATENA, Environmental Science and Technology, JAMA Network Open, Earth and Space Science

GRANTS

Link changes in dynamic soil properties (DSP) with soil morphology and soil classification over multiple decades to support integration of DSP with national soil survey to reflect the changes induced by human land use Natural Resources Conservation Service. With A. Margenot, S. Xu, C. Attanayake. \$500,000.

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 Multilevel 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, Stan) SQL (PostgreSQL), Java, JavaScript (D3.js), Ruby (on Rails) Geospatial (PostGIS, GDAL, OpenStreetMap, Mapnik, QGIS, Leaflet) git, bash, GNU/Linux, L ^A T _E X Fluent in Russian	
REFERENCES	<ul style="list-style-type: none"> • Kaiyu Guan, kaiyug@illinois.edu Professor, Agroecosystem Sustainability Center, University of Illinois Urbana-Champaign • Dan Black, danblack@uchicago.edu Professor, Harris School of Public Policy, University of Chicago • Emile Jorgensen, Emile.Jorgensen@cityofchicago.org Epidemiologist, Chicago Department of Public Health 	