

Education

MS in Computational Analysis & Public Policy, June 2020

University of Chicago, Harris School of Public Policy

Coursework: Causal Inference Statistics, Databases, Machine Learning, Program Evaluation, Web Development

BS in Mathematics, May 2018

Indiana University

Minors: Law and Public Policy, Joint Political Science and Economics, Liberal Arts Management/Business, Physics

Skills

- **Data Science:** R (tidyverse, tidymodels, data.table), python (pandas, selenium, flask), SQL
- **Data Visualization:** R (ggplot2, leaflet, R Markdown), JavaScript (react, Mapbox, d3)

Professional Experience

Data Scientist, Chicago Department of Public Health (June 2022 to present)

- Managed and optimized cloud data pipelines which formed the backbone of City epidemiological analysis
- Created automated data quality monitoring for the Electronic Case Reporting public health data standard

Data Analyst, Illinois Department of Central Management Services (November 2020 to June 2022)

- Engineered key performance measures and interactive dashboards for a dozen client bureaus, including procurement
- Constructed ETL data pipelines using web scrapers, SSIS packages, ODBC queries, and power automate flows
- Acted as team SQL server administrator constructing optimized views and automated data updates to Power BI
- Led participation in *Data Labs: Roadmap to Recovery* program at the Beeck Center, Georgetown University
- Established data governance practices and internal standardized tools for Data Analytics team

Adjunct Lecturer, Master of Science in Civic Analytics, University of Illinois Chicago (January 2022 to present)

- Courses: “Artificial Intelligence and Machine Learning in the Public Sector”
- Created and taught on ethical uses of machine learning in government using R and tidymodels

Consultant, Coalition for Property Tax Justice (June 2020 to Present)

- Built tools which automatically filed over 500 property assessment appeals for low-income homeowners in Detroit
- Constructed machine learning models to identify eligible homeowners for project services and reparations
- Using react, AWS, and python (flask), deployed and maintained a ‘turbo tax for property appeals’ for public use

Data Analysis Specialist, Federal Emergency Management Agency (August 2020 to November 2020)

- Used R and python to build pipelines and automated reports on pandemic hotspots and vaccination distributions

Data Scientist, Center for Municipal Finance, University of Chicago (May 2019 to September 2020)

- Built a packaged data pipeline to produce standardized and automated reports using RMarkdown
- Presented detailed reports and visualizations to elected officials and reporters to improve property assessment
- Standardized a large (~10TB) nationwide geospatial dataset into 3,000 localized reports accessible online
- Released an open-source R package for property tax data analysis
- Created interactive online dashboards using R Markdown, leaflet, java/d3, and mapbox

Publications & Community Work

An Evaluation of Residential Property Tax Assessments in the City of Detroit, 2016-2018, Center for Municipal Finance, Harris School of Public Policy (*February 2020*)

Education Denied: Indiana University's Japanese American Ban, 1942 to 1945, Indiana Magazine of History (*June 2019*)

Governor, Midwest District, Japanese American Citizens League (*August 2016 to present*)