

I am a civic technologist with four years of experience developing data-driven strategies and products for clients and stakeholders in government, public utilities, national non-profits and software companies. I am passionate about using data science to support real-world innovation and progress in environmental and public health policy.

Work Experience

Data Scientist, **BlueConduit** Remote - Full-time 01/2020-Present

Skills: Data science - *AWS, Databricks, PySpark, sklearn, geopandas, ArcGIS*; ArcGIS Online; Full-stack - *ReactJS, Mapbox GL JS, Flask*; Product management & UX design - *Jira, Miro, Figma*; Public speaking; Meeting facilitation

- Leading R&D and policy research on data science team, acting as subject matter expert for open geospatial data platforms and APIs including ArcGIS Online, US EPA, American Community Survey, Regrid and Zillow.
- Developing first known national lead water service line inventory using machine learning software, as part of the [White House Partnership on Lead Service Lines](#).
- As product manager, established product development lifecycle, managed product engineering team and acted as project lead for [Google.org Fellowship](#).

Research Programmer, **Public Health Dynamics Lab (Pitt)** Pittsburgh, PA - Full-time 09/2019 - 04/2020

Skills: Data science - *sklearn, geopandas, sp, sf, ggplot, FlexScan, GWR, SpatEntropy*; Full-stack - *Django, d3.js, Plotly*; Public speaking

- Conducted study on mortality rates related to overdose and suicide in Appalachian region, manuscript in pre-publication, see [recent story map](#).
- Analyzed geospatial datasets and health surveys for small area estimation study, [published 2022](#).
- Generated synthetic datasets for testing SpaceStat geostatistical software (BioMedware part-time subcontract).

Civic Digital Fellow, **US Census Bureau** Suitland, MD - Full-time 06/2019 - 08/2019

Skills: Data science - *sklearn, geopandas, osmnx, networkx, OpenStreetMap*

- Developed OpenStreetMap feature engineering ETL for US Census Bureau's secure computing environment.
- Used random forest models to identify businesses unlikely to report shipping activity, saving \$400,000 in administrative burden related to sampling error in the US Commodity Flow Survey.

Client Services Intern, **Innovation and Performance** Pittsburgh, PA - Part-time 03/2018 - 04/2019

Skills: Data analysis - *pandas, numpy, BeautifulSoup*; Design thinking; Public speaking; Meeting facilitation

- Developed business cases and gathered technical requirements for digital transformations across 19 departments and agencies in the City of Pittsburgh.
- Identified \$2M in potential annual savings through software inventory and procurement analysis.

Education

BPhil in Information Science, **University of Pittsburgh** 08/2015 - 04/2019

Magna Cum Laude - GPA: 3.696 - Economics minor, coursework in data analytics, GIS and public health

- Founder of H2Info Student Lead Testing Lab - acquired funding, organized volunteers, collected water samples from students and faculty, signed up residents for the City's safe water program and distributed 40+ free water filters to program participants.
- Geoinformatics Laboratory - joined doctoral research group within School of Computing and Information led by Prof. Hassan Karimi while researching and writing for [my baccalaureate thesis](#).