

Work Experience

Data Scientist, BlueConduit

Remote - Full-time

01/2020-Present

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

- Currently in a client-facing role, using machine learning and spatial data science to identify lead service lines for six public and investor-owned utility clients, accelerating asset replacement and prioritizing public health of vulnerable populations.
- Working with the data engineering team to scale data science operations and transition to ML-in-production using Databricks on AWS and ArcGIS platform--to date has driven ~\$12K reduction in per-customer cost-to-serve.
- Compiled and estimated national lead service line inventory to help public water systems apply for Bipartisan Infrastructure Bill funding, part of the [White House Partnership on Lead Service Lines](#). These estimates are a foundational component of [BlueConduit's free software tool for utilities](#).
- As *product manager*, established product development lifecycle, managed product engineering team, acted as project lead for [Google.org Fellowship](#), brought flagship SaaS product to market.

Data Science Contractor, Two Degrees Adapt

Remote - Part-time

06/2023-Present

- Data mining and [visualization of environmental datasets](#) for future-climate and leveled cost of energy projections for renewables development, agriculture stakeholders in the Midwestern U.S.

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](#). Contributed to study on small area estimation of health survey data, [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

- 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, Geoinformatics Laboratory, University Honors College