Raanan S. Gurewitsch *(Ra-nahn Gür-wich)*

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I am a civic technologist with four years of experience developing data-driven strategies and products for clients and stakeholders in government, public utilities and national non-profits. Driven by a passion for social impact and storytelling, I rely on strong verbal communication skills and the ability to distill technical concepts to create value through data science and mapping.

Work Experience

Data Science and Product, **BlueConduit** — Remote - 40 hrs — 01/2020-Present

Skills: Data science - *AWS, sklearn, XGBoost,* geo*pandas, Plotly, ArcGIS;* ArcGIS - *Open data hub, Rest API, MapViewer, Web App Builder;* Full-stack - *ReactJS, Mapbox GL JS, Flask;* Product management & UX design - *Jira, Miro, Figma*

- 2023: Currently leading research and development on the data science team, working closely with internal and external stakeholders to bring BlueConduit's data and insights to more utilities around the US and inform national and state policy-making about lead service line replacement.
- 2023: Developing open source machine learning software to estimate and map the prevalence of lead water service lines in tens of thousands of US public water systems, serving as the underlying model for the new version of LeadOut.
- 2022: Acted as Project Lead for 6-month Google.org Fellowship, onboarded and guided a team of 10 fellows, consisting of software engineers, product managers, designers and marketing specialists. Fellowship team scoped, designed, validated and launched new consumer-facing web product LeadOut.
- 2022: Helped establish and refine a product development lifecycle, guide company transition from consulting services to SaaS business model. Managed product engineering team and software development, overseeing $1.4 million in recognized revenue within the first year of product launch.
- 2021 (contract): Collaborated with machine learning engineers and data scientists to automate core machine learning processes to ensure standardization, reproducibility and scalability of methods, including internal tools in Python for exploratory data analysis and A/B testing for machine learning models.
- 2020 (contract): Researched techniques to reduce the effects of spatial autocorrelation and other biasing factors that obscure machine learning results and interpretation, including spatial cross validation, spatial entropy and geographically weighted regression.

Research Programmer, **Public Health Dynamics Lab, Univ. of Pittsburgh** — Pittsburgh, PA - 40 hrs — 09/2019 - 04/2020

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

- Conducted study of mortality rates for overdose and suicide-related deaths in the US Appalachian region between 1979 and 2015 using novel spatio-temporal clustering algorithm. Study manuscript in pre-publication.
- Produced descriptive statistical analysis of geospatial datasets and health surveys as a use case for a novel statistical downscaling algorithm for small area estimation, published in 2022.
- Generated synthetic datasets to test SpaceStat geostatistical software as a part-time subcontractor for BioMedware, Inc. (50% time).

Data Science Fellow, **US Census Bureau, Civic Digital Fellowship** — Suitland, MD - 40 hrs — 06/2019 - 08/2019

Skills: Data science - *sklearn,* geo*pandas, osmnx, networkx, OpenStreetMap*

- The Civic Digital Fellowship is a program designed to match up-and-coming technologists with high-impact government technology roles.
- Developed OpenStreetMap ETL prototype to source geospatial data for use in machine learning applications within the Census Bureau's experimental computing environment. Used machine learning to identify businesses sampled in the US Commodity Flow Survey (CFS) that were least likely to report shipping activity, leading to reduction in sampling error and administrative burden equivalent to $400,000.

Client Services Intern, **City of Pittsburgh, Innovation and Performance** — Pittsburgh, PA - 12 hrs — 03/2018 - 04/2019

- Developed business cases, gathered technical requirements and automated data collection for large-scale digital transformations and upgrades such as timekeeping and scheduling and Windows 10 rollout.
- Identified over $2 million in potential annual savings by developing an enterprise-wide software inventory analysis and software procurement strategy based on installation and utilization data from over 1,000 on-premises computers, qualitative data from UX interviews with employees across 19 City departments.

Education

BPhil in Information Science**, University of Pittsburgh, Sch. of Computing and Information** — 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.