Nissim Lebovits

nissim@design.upenn.edu | Philadelphia, PA | 215-520-2622

LinkedIn | GitHub | Portfolio

Education

Master of City Planning, University of Pennsylvania August 2022 - Expected 2024

- Awarded Witte-Sakamoto Family Prize in City Planning ($50,000; awarded to one student per year)
- Perry World House Graduate Associate in Sustainable City Planning
- Relevant Courses: Remote Sensing, Floodplain Management, Environmental Planning, Spatial Statistics, Wetland Ecology, Public Policy Analytics, Raster GIS, JavaScript, Cloud Computing
- Spring 2024 Studio in Climate Adaptation in Small and Mid-Sized Towns in Coastal New Jersey

Bachelor of Arts in History, Vanderbilt University August 2016 - May 2020

Research Experience

University of Pennsylvania Philadelphia, PA

Research Assistant for Professor Allison Lassiter March 2023 - Present

- Establishing new applications of statistical clustering techniques such as Gaussian mixture modeling and k-means clustering to quantify the potential vulnerability of public drinking water suppliers in U.S. coastal communities to climate change.
- Exploring more than 100 scientific papers in order to develop a robust approach to characterizing water supplier vulnerability.
- Identifying, researching, and integrating more than 20 geospatial datasets on financial, infrastructural, and climatic vulnerability factors drawn primarily from U.S. federal data sources like EPA, FEMA, NOAA, and USGS.
- Creating reproducible workflows in Python, R, and ArcGIS for data manipulation, analysis, and visualization.

Research Assistant for Professor Matthijs Bouw November 2023 - Present

- Conducting comprehensive literature reviews to establish methodologies for modeling urban heat and flooding probabilities using machine learning and remote sensing data.
- Developing machine learning pipelines using Google Earth Engine and Google Cloud via the Python API to predict urban flooding probabilities and land surface temperature using open-source remote sensing data.
- Integrating outputs with data on population vulnerability, biodiversity, and urban expansion to inform a UN-Habitat initiative to help urban planners mitigate biodiversity loss due to urban and agricultural expansion.

Independent Study in Remote Sensing for Sustainable Urban Planning August 2023 - December 2023

- Built on skills acquired in a previous remote sensing course, following a self-directed course of study to gain knowledge of remote sensing applications and techniques.
- Investigated more than 50 papers related to applications of remote sensing for sustainable urban planning, synthesizing the results in a write-up.
- Explored specific use cases related to wetland degradation, incorporating datasets at multiple spatial and temporal resolutions to produce an analysis of land cover change over time.
- Based on findings, delivered a guest lecture on remote sensing for urban planning for Penn's spring 2024 "deep learning applications in remote sensing applications" class.

Publications

Forthcoming, “Which water suppliers are underserved and overburdened? A multidimensional classification of vulnerability under climate stress,” Allison Lassiter, Nissim Lebovits, Zoe Kerrich, and Henry Feinstein.

Professional Experience

Code for Philly — Philadelphia, PA

Project Manager — July 2023 - Present

- Leading the development of an innovative, open-source data dashboard, based on previous work of mine, which leverages public data to assist community organizations in prioritizing vacant and abandoned properties for anti-gun violence interventions.
- Assimilating and synthesizing diverse information and skills related to policy, law, spatial statistics, and web development in order to integrate it into the project and convey it to team members.
- Coordinating a team of more than 15 designers, developers, analysts, and policy experts, ensuring that all team members understood the project goals, the relevant technical information, and their own responsibilities.
- Organizing and facilitating more than 50 meetings with stakeholders in government, academia, and local community organizations in order to ensure alignment with community needs.
- Recruiting and onboarding upwards of 20 volunteers for the project while also canvassing 4 potential funders to ensure the long-term viability of the project.
- Developing technical and practical project documentation to facilitate new volunteer contributions and ensure long-term project viability.

Office of Community Empowerment and Opportunity, City of Philadelphia — Philadelphia, PA

Data and Evaluation VISTA — July 2021 - July 2022

- Developed novel data collection and distribution tools for the federally designated West Philadelphia Promise Zone, including interactive reports and dashboards aimed at a non-technical audience.
- Established regular data meetings with key stakeholders in other City agencies, the U.S. Department of Housing and Urban Development, and Drexel University.

Skills

Data Analysis: R, Python, Google Earth Engine, Google Cloud, PostgreSQL, SQL, ArcGIS
Data Visualization: JavaScript, Adobe Illustrator, Adobe InDesign, Adobe Photoshop
Languages: English (native), Spanish (fluent), Hebrew (intermediate), French (intermediate)