## CALEB KLUCHMAN

Contact: calebkluchman@gmail.com 781-999-2096 | LinkedIn: Caleb Kluchman

Clark University | Master of Science: GIS

Bachelor of Arts: Data Science and Geography with Honors, Double Major, Magna Cum Laude, May 2024

Geospatial analyst and remote sensing specialist with experience in GIS, data science, and environmental research. I use Python, Google Earth Engine, ArcGIS Pro, and QGIS to develop data-driven solutions for environmental and urban challenges. My work applies geospatial technologies to support sustainable development and community projects. View my portfolio here: https://kluchman.github.io/

## **Experience**

GIS Consultant, Wildlife Conservation Society, Mt. Riga Inc.

Spring 2025

- Developed relationships with and interacted regularly with Wildlife Conservation Society GIS Brazil
  team to organize, supplement, and analyze their data on the conservation areas in Central and South
  America, resulting in Web Maps, a formal report, and a presentation to their leadership team in NYC
- Created vegetation health and climate trends web maps using publically accessible satellite, LIDAR, road, buildings, and parcel data for Mt Riga Inc

Teaching Assistant, Advanced Geospatial Analytics with Python, Introduction to Coding Fall 2024, Fall 2023

- Created reproducible workflows using Git and Docker alongside geospatial python packages
- Managed multiple team projects, providing resources and code support

Remote Sensing Analyst, NASA DEVELOP, NOAA-NCEI

Summer 2024

- Lead and managed remote sensing analysis to find urban heat island hotspots and appropriate areas for cooling infrastructure for the City Of Asheville and Asheville Greenworks
- Worked closely in an interdisciplinary team to perform analysis and communicate results to clients and general public through maps, scientific and informal reports, and visualizations

Research Assistant, Human Environment Research Observatory (HERO)

2023 - 2025

- Collaborated with an interdisciplinary team to collect, analyze, and present data on urban tree mortality through presentations, posters, and a formal report to city officials and the press
- Conducted data collection and analysis using Fieldmaps, ArcGIS Pro, Google Earth Engine, and R

Assistant Transit Planner, Central Massachusetts Regional Planning Commission (CMRPC)

2022-2023

 Collected, analyzed, organized, and maintained transportation datasets for the City of Worcester, including ridership trends, and presented findings to support data-driven decision-making

#### **Skills**

- Scripting Languages / Programming: Python, R, Arcade, SQL, Javascript, Git, Docker
- GI Systems: ArcGIS Pro, Google Earth Engine, TerrSett, QGIS
- Science Communication: Presented research to <u>DCR</u>, <u>City of Asheville</u>, <u>Geo-Health</u>, <u>NEARC</u> (<u>poster</u>), <u>NESTVAL</u> (<u>poster</u>), <u>Clark Center for Geospatial Analytics workshop</u>, <u>Clarkfest</u> (<u>poster</u>)

# **Projects**

- Mapping: Time Series Urban Heat Vulnerability with Remote Sensing in Asheville NC and Worcester MA, Access to Green Spaces in Mexico City with Remote Sensing, Urban Tree Mortality in MA, Urban Expansion in Las Vegas Nevada, Oil Palm Detection in Ghana with Deep Learning, Land Change Modeling Forest Loss in The DRC, Eucalyptus Growth Monitoring in San Francisco, CA
- Side Projects: Converting antique sewing machine to phone charger (engineering), Arboretum restoration (project management), Clark Cooking Club (collaboration between organizations)

## Awards

 NESTVAL conference poster award, NEARC conference flash talk and poster awards, ClarkTank web app competition first place, <u>NASA Open Science Certification</u>, Honors in Geography