Tyler Anderson

tylanderson@outlook.com | **GitHub** • **LinkedIn** • **Twitter**
Washington D.C. Region, USA

Experience

Aug 2023 - Present

Senior Data Scientist; Floodbase (Remote)

- Building scalable data pipelines to ingest satellite, climate, and hydrologic data into cloud-friendly formats for machine learning.
- Design and implement workflows to run zonal analysis over 40+ years of data.
- Improve efficiency of pipelines, dropping processing time 30 - 50%, and improving throughput.

Feb 2021 - Aug 2023

Remote Sensing Manager; Floodbase (Remote)

- Manage data production team in producing and delivering flood maps, reports and indexes to customers, including **media**.
- Design and implement processing workflows to ingest and store satellite data, which have ingested 400 TB of data and more than 1 Million STAC items.
- Implement clients and processing workflows to interact with NASA, USGS, ESA, and Planet APIs.
- Manage pre-sales scoping for product fit and recommendations during custom implementations.
- Train users on flood data and dashboard, including international workshops.

Aug 2019 - Feb 2021

Remote Sensing Scientist; Floodbase (Brooklyn, NY)

- Improved and identified errors in algorithms for flood detection from optical and SAR satellite imagery.
- Built GUI used for quality control of over 30 years of satellite data and tracking algorithm errors.
- Created datasets for deep learning of floods, including the publicly available **sen1floods11** and **C2S-MS Floods Dataset**.
- Train users on how to utilize data and maps and utilize customer dashboard.

Jun - Aug 2018

NASA DEVELOP Participant; SSAI (Moffett Field, CA)

- Analyze Landsat and Sentinel-2 imagery to asses the water quality impact of hurricanes using ACOLITE and R.

Jan - May 2018

GIS Help Desk Assistant; Clark University (Worcester, MA)

- Provided one-on-one tutoring and guidance to students in department on GIS tasks.

Jun - Aug 2017 **NOAA Fellowship**; NOAA (Silver Spring, MD)

- Analysis of MODIS satellite-derived bathymetry.

May - Jul 2016 **HERO Fellowship**; Clark University (Worcester, MA)

- Field work collecting data on juvenile tree health across the City of Worcester.

Education

2018 - 2019 **MS, GIScience**; Clark University (Worcester, MA)

Thesis title: Gypsy Moth from Above: Using Landsat Sentinel-2 Fusion Products to Track the Impact of Gypsy Moth in Southern New England

Teaching Assistant: Python Programming for GIS & Field Methods

2014 - 2018 **BA, Environmental Science**; Clark University (Worcester, MA)

Honors thesis: Trends in Forest Cover: Semi-Automated Classification of Forest Cover in Massachusetts for 2015

Technical Knowledge

Geospatial GDAL, rasterio, xarray, STAC, shapely, geopandas, Zarr, Google Earth Engine, ESA SNAP, QGIS

Programming Python, Docker, R, Git, JavaScript

Cloud Apache Beam / GCP Dataflow, GCP Cloud Build, GCP Cloud Functions, Parquet

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