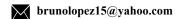
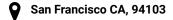
# **Bruno Lopez**







Linkedin



Website

# **SKILLS**

Python (Numpy, Pandas, sci-kit-learn, Tensorflow, BeautifulSoup), R (dplyr, tidyr ggplot, caret), Machine Learning (Random Forest, SVM, Regression, PCA), Deep Learning (Object Detection, NLP, Image Classification), Statistical Analysis, Data Visualization, Data Pipeline Automation, Data Cleaning, Web Scraping, SQL, Data Mining, GIS, Linux, Git & Version Control. Google Earth Engine, Geospatial Data Science, Mentorship,

## **EXPERIENCE**

#### REMOTE SENSING DATA SCIENTIST

San Francisco, CA

Orbital Sidekick

Feb 2022 - Dec 2022

- I built data pipelines for object detection/classification, change detection, and atmospheric correction.
- Contributed to multiple machine learning projects including crop/forest speciation, fire change detection, time-series vegetation analysis, mineral mapping, and creating internal python modules for company use.
- Fused open-sourced and in-house data to create sophisticated machine-learning algorithms.
- Reproduced and adjusted methodologies from research papers to suit our business demands/goals.
- Mentored a Masters's degree student and supervised his machine learning projects.
- Integrated object-oriented programming principles into our data pipelines for easier reusability.

#### RESEARCH DATA ANALYST

Stanford, CA

Stanford University

January 2021 - January 2022

- I Contributed to multiple machine learning projects from start to finish which included identifying crop fields in Africa, object detection of houses, and analyzing soil characteristics from web-scraped data.
- Co-authored a paper that used causal forests to prove the ineffectiveness of cover crops in the U.S.
- Scripted programs to automate data extraction, data analysis, dashboard creation, report making, data visualization, web scraping, and machine learning for our lab group and handled version control using Git.
- Designed and implemented data pipelines for students improving their algorithm speed 2-10 times.
- Curated geospatial datasets for students for tasks such as object detection and image classification.

### **PROJECTS**

## OpenStreetMap (OSM) Geospatial Analytics

I query OSM data for a specific category/region using python. I then extract the geometries for the region of
interest and this creates a geospatial ML dataset. I am integrating open-sourced satellite imagery as a next step.

#### **Manga Face Detector**

I scraped manga pages from a website and sampled 100 random pages from one specific manga. I then labeled the
faces from this subsample and I am training an object detection model to identify faces from unseen pages.

## **EDUCATION**

#### University of California, Santa Cruz

Graduated June 2020

Bachelor of Science in Earth Science (Data Analytics Concentration)) w/ Honors

GPA 3.48

Honors Thesis: "Assessing Long-Term Changes in Sea Surface Temperature Extremes".

**Relevant Coursework:** Programming Abstractions: Python, Data Analysis in the Environmental Sciences, Advanced GIS, Statistics, and Data Analysis in the Geosciences, Scientific Computing, Data Visualization.