Bruno Lopez

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EXPERIENCE

REMOTE SENSING DATA ANALYST/SCIENTIST **San Francisco, CA**
Orbital Sidekick *Feb 2022 - Dec 2022*

- Using machine learning techniques I created workflows for analyzing crop species, health, and biomass using hyperspectral (HSI) data.
- Completed multiple projects including crop/forest speciation, fire change detection, time-series analysis of vegetation, mineral mapping, and creating internal python modules for company use.
- Mentored a Masters's degree student and supervised him in projects such as change detection, mineral mapping, and general technology (Python classes, PEP-8, Gitlab, Documentation, etc..)
- Fused open-sourced data and our data to create sophisticated machine-learning algorithms for classification.
- Reproduced and adjusted methodologies from multiple papers to suit our business demands/goals.

RESEARCH DATA ANALYST **Stanford, CA**
Stanford University *January 2021 - January 2022*

- Led a project using Machine Learning techniques to build models that predict crop classification and crop yields in Malawi, Africa.
- 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.
- Conducted statistical research/data analysis for multiple projects under minimal supervision.
- Designed and implemented data pipelines for undergraduate students improving their speed 2-10 times.

ENVIRONMENTAL DATA ANALYSIS INTERN **Moss Landing, CA**
Monterey Bay Aquarium Research Institute (MBARI) *July 2020 - September 2020*

- Extracted, cleaned, analyzed, and plotted messy biogeochemical datasets, using R and Python.
- Mapped out the routes of Biogeochemical Argo-Floats in the Subarctic Pacific Ocean programmatically.
- Analyzed time-series data to quantify changes in the Phytoplankton biomass in the Subarctic Pacific.

EDUCATION

University of California, Santa Cruz *Graduated June 2020*
Bachelor of Science in Earth Science 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.

SKILLS

Python (File I/O, Object-Oriented Programming, Data Visualization, Text Mining, Time Series Analysis, Geospatial Data Analytics, Rasterio, Geopands, GDAL), **Machine Learning** (Random Forest, Regression, K-Means, PCA, SVM, CNN), **Git** (Branches, Merging, Pushing, Pulling), **SQL (**Querying, Database Creation), **R (**Data Cleaning, Statistical Analysis, Data Visualization, Text Mining, Time Series Analysis, dplyr, ggplot2)