Joseph Gibbs

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Environmental scientist with a background in biology and advanced skills in GIS, Python, and R. Experienced in ecological and hydrological analysis through collaborations with governmental and non-profit partners. Eager to apply geospatial expertise to support local water resources and environmental management.

PROFESSIONAL EXPERIENCE

NASA DEVELOP PROGRAM

Geospatial Analyst　　　　　　　　　　　　　　　　　　　　　　　*September 2024-April 2025*
- Leveraged ArcGIS Pro and Python to conduct and automate hydrological analysis of South African rivers and riparian zones.
- Coordinated logistics, ensuring the timely delivery of geospatial recommendations to stakeholders.

ABRAHMS LAB AT THE UNIVERSITY OF WASHINGTON

Undergraduate Researcher　　　　　　　　　　　　　　　　　　　　*October 2022-June 2024*
- Analyzed accelerometer and observational data in Excel and R to build labeled training sets for machine learning models predicting lion and African wild dog behavior.
- Contributed to reports and proposals related to global change ecology and methods in field ecology; applied scientific writing skills to communicate results.

BURKE MUSEUM OF NATURAL HISTORY

Curatorial Assistant for the Genetic Resource Collection　　　　　　　*March 2022-June 2024*
- Cataloged and labeled tissue samples, organizing them in cold storage for accurate retrieval and tracking.
- Prepared and shipped specimens under lab-safety protocols supporting genomic and species-conservation studies.
- Engaged with the community, leading events for the public to explain the importance of the Collection.

EDUCATION & CERTIFICATIONS

University of Washington
Bachelor of Science, Biology, June 2024
Minor in Data Science; Minor in Environmental Science and Resource Management
GPA: 3.87

Palomar College
Associate of Science, Advanced GIS. In progress, expected June 2026

Coursera
Python Series Certificate of Achievement, October 2024

PROJECTS

- **Land-Cover Mapping, Puerto Rico (NASA DEVELOP):** Created land cover maps and analyzed change in Puerto Rico, mapping 17 classes using machine learning algorithms and environmental variables.
- **Riparian Vegetation Analysis, South Africa (NASA DEVELOP):** Led national stream order analysis and mapped 11,800 km² of riparian vegetation, automating classification workflows using Python scripting.
- **Salton Sea Monitoring (Personal Portfolio):** Designed and automated methodology using Python and ArcGIS to track changes in the surface area of the Salton Sea and the condition of surrounding vegetation.

SKILLS

GIS & Remote Sensing: ArcGIS Pro, QGIS, Google Earth Engine, ENVI
Programming: Python (NumPy, GeoPandas, GDAL, ArcPy), R (dismo, tidyverse, sf), SQL
Research & Analysis: Technical writing, environmental sampling, field ecology, statistical analysis