

Sofia Ingersoll

/soF-AYA Ing-er-saul/

Sofia.Ingersoll@Outlook.com | [Website](#) | [Portfolio](#) | [GitHub](#) | [LinkedIn](#)

EDUCATION

Master of Environmental Data Science | *June 2024* | Bren School of Environmental Science & Management, UCSB
Leadership: Class Co-Chair; Dean's Advisory Committee, Representative; BSLC, Representative

Bachelor of Science in Chemistry | *June 2023* | Earl Warren College, University of California, San Diego
Certification: American Chemical Society (ACS) Certification

A.S. in Mathematics, Physics, Chemistry, & Natural Sciences | *June 2021* | Moorpark College, Moorpark, CA
Leadership: Women in Engineering, Mathematics, & Science, Treasurer (2020–2021)

PROFESSIONAL EXPERIENCE

Project Lead, Machine Learning Data Engineer, Geospatial Analyst Pasadena, CA (Expected: 1/25–9/25)

[NASA DEVELOP Analytical Mechanics Associates](#) @ Jet Propulsion Laboratory

Projects: *San Bernardino Wildland Fires Project; Los Angeles County Ecological Conservation Project*

- Analyze, quantify, synthesize, and communicate findings for NASA's Earth observation satellite and radar data. Produce high quality science communication materials such as technical papers, posters, presentations, statistical and map visualizations, novel machine learning remote sensing methodology, geopackages, and metadata. Established project organization highlighting milestones, defined QA practices, acted as the primary point of contact when conducting stakeholder interviews and maintained partner relations. Presented findings in-person at live-streamed events, as well as answered questions.

Environmental Data Scientist

Goleta, CA (10/23–10/24)

[The 2035 Initiative, UCSB](#)

Affiliations: *California Climate Action (CCA); The Energy Governance and Political Economy (EGAPE) UC Santa Barbara; Institute of Energy Efficiency (IEE), UCSB; Political Science Department, UCSB*

- Supported a myriad of projects with interdisciplinary teams, compiled and analyzed datasets, developed remote-sensing surveying methods, conducted policy and literature reviews, created interactive maps, and other informative data visualizations, provided statistical interpretations, accuracy, and validation testing, web-scraped data, trouble-shot, and optimized workflows.

Master's Capstone Lead Data Engineer & Communications Manager

Goleta, CA (1/24–6/24)

[Understanding the Influence of Parameter Value Uncertainty on Climate Model Output](#)

Affiliation: *National Center for Atmospheric Research - Climate & Global Dynamics Lab (NCAR CGD); Bren School of Environmental Science & Management; National Center for Ecology Analysis and Synthesis (NCEAS).*

[Blog](#) | [Presentation](#) | [Data Repository](#) | [Technical Documentation](#)

- Designed data modeling workflows to meaningfully visualize climate modeling predictions from a 10TB database of NetCDF files using high-performance computing (HPC). Applied dimensional reductions; spatial, and temporal manipulations; Bayesian machine learning analysis; sensitivity, accuracy, and validation testing.

Environmental Data Analyst

La Jolla, CA (12/22–6/23)

Affiliation: *P.I. Dr. Jonathan Slade, Slade Labs; UC San Diego Dept of Atmospheric & Analytical Chemistry, Chemistry & Biochemistry; Scripps Institution of Oceanography, UC San Diego; Environmental Protection Agency (EPA)*

- Produced weekly reports using local meteorological and hydrological data to evaluate local climate effects on the quality of air, sea water, precipitation, storm water, and wastewater with respect to their potential plastic pollution impacts on public health. Assisted the organization of the project by standardizing the various environmental data sources used by all team members and created various preliminary data visualizations.

RELEVANT SKILLS

Languages & Software: R, Python – proficient, SQL, Git/Bash – confident, HTML, CSS, SCSS, JS – familiar, GitHub, Version Control, Microsoft Suite, ESRI Products ArcGIS Pro & QGIS, Google Earth Engine, ArcPy, Docker

Analytical & Technical: Geospatial analysis, quantitative & qualitative data analysis, machine learning analysis, map visualizations, field and remote monitoring, uncertainty quantification, tabulation of natural indices, database management, data vi, error analysis, technical writing, CEQA/NEPA assessments, metadata documentation, science communication, statistical analysis, accuracy, and validation testing, dashboard/web app development, containerization