SOFIA INGERSOLL

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EDUCATION

Master of Environmental Data Science (June 2024)
Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)
>   Highlighted Coursework: Geospatial Analysis and Remote Sensing, Statistics for Environmental Data Science, Analytical Workflows & Scientific Reproducibility, Modeling Environmental Systems
>   Leadership/Involvement: 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 (UCSD)
>   Certification: American Chemical Society (ACS) Certification (June 2023)
>   Leadership/Involvement: Women in Engineering, Mathematics, & Science, Treasurer (2020–2021)

MASTER'S CAPSTONE PROJECT

Understanding the Influence of Parameter Value Uncertainty on Climate Model Output (1/24–6/24)
Role: **Communications Manager and Lead Data Engineer**| Client: NCAR Climate & Global Dynamics Lab
- Facilitated stakeholder engagement via meetings and curating progress updates. Coordinated tasks, ensuring project milestones are met with precision, and provided constructive feedback to enhance project outcomes.
- Designed, built, documented, and optimized a HPC workflow that transforms clusters of netCDF-4 files from Community Land Model (CLM) simulations via dimensional reduction, manipulation, Gaussian Process Regression ML analysis. Models are generated, displayed, and archived on a public-facing continuous integration emulator dashboard. [Python]
- Repository: https://github.com/GaiaFuture/.github

PROFESSIONAL EXPERIENCE

Data Scientist – Graduate Research Assistant (10/23–10/24)
The 2035 Initiative, University of California, Santa Barbara, Santa Barbara, CA
- Effectively prioritized tasks to actively contribute to a set of innovative climate and public advocacy research projects. Provided technical guidance and data collection support to ensure successful project execution.
- Addressed data extraction challenges and processes large volumes of data. Documented solutions and collaborates with team members to integrate into workflow for enhanced performing. [Python, HTML, R]
- Developed reproducible workflows with an emphasis in geospatial analysis and troubleshooting solutions with detailed documentation to aid interdisciplinary team members, enhance efficiency, and encourage collaboration. [Python, R, QGIS]

Environmental Data Analyst – Undergraduate Researcher (12/22–6/23)
The Slade Lab, UCSD Dept of Atmospheric & Analytical Chemistry, San Diego, CA
- ETL meteorological and hydrological data from ARM: Aerosol Observing System Surface Meteorology ("AOSMET") and Coastal Data Information Program ("CDIP") to support an EPA-funded field study.
- Produced comprehensive Environmental Analysis and Seasonal Influences reports, investigating the impact of seasonal variations on aerosol particle properties and regional public health.

ADDITIONAL PROJECTS

Investigation of the Thomas Fire Impacts in Santa Barbara County, CA (2017 – 2018) | Blog | Repository [Python]
Determining the Effects of Urban Development on Biodiversity Intactness Index in Phoenix, AZ | Repository [Python]
California Climate Action: CA Electrification Equitable Grid Modeling | Repository [R, Python, QGIS]

SKILLS & ADDITIONAL EXPERIENCE

Programming: R (proficient), Python (proficient), SQL (confident), Microsoft Excel (proficient)
Software: GitHub, HPC, Slack, Microsoft Office Suite, MPC, Zotero, Teams, Zoom, QGIS, ArcGIS, IGOR Pro
Additional Education: A.S. in Physics, Mathematics, Chemistry, & Natural Sciences – Moorpark College, Moorpark, CA (June 2021)