

ALEXANDRIA REED

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EDUCATION

Master of Environmental Data Science (Expected June 2023)

Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)

Highlighted Coursework: Statistics for Environmental Data Science, Geospatial & Remote Sensing, Machine Learning, Modeling Environmental Systems, Databases & Data Management (all to be completed by 6/23)

Leadership/Involvement: Class Chair, Dean's Advisory Council

Bachelor of Science in Environmental Studies (June 2017)

University of California, Santa Barbara (UCSB)

DATA SCIENCE PROJECTS

Data Science Master's Capstone Project (1/23–Present)

Informing Forest Conservation Regulations in Paraguay (Paraguayan Chaco)

Clients: Dr. Robert Heilmayr, UCSB; Paraguay's National Forestry Institute (INFONA)

- Assess property owners' compliance with approved land use plans (LUP) and quantify deforestation rates.
- Create an R simulation tool to evaluate the effects of current and alternate laws in the Chaco region.
- Train a machine learning model to predict deforestation patterns, including LUP variations.
- Develop an interactive R Shiny dashboard to visualize results.

Statistics for Environmental Data Science Final Project (11/22–12/22)

- Investigated the relationship between poverty rates and the probability of concentrated animal feeding operation (CAFO) presence in California.
- Used a generalized linear model (GLM) to find a statistically significant relationship between poverty rates and the presence of CAFOs in California, highlighting environmental justice issues.

ENVIRONMENTAL EXPERIENCE

Citadel EHS, Glendale, CA

Environmental Specialist (1/18–8/22 Full Time, 8/22–Present Part Time)

- Compiled, wrangled, analyzed, and prepared reports of wind and dust data for weekly submissions to regulatory bodies, including the SCAQMD and the DTSC.
- Manage wastewater surveillance projects for the presence of SARS-COV-2. Successfully identify the presence of COVID in wastewater and implement measures to reduce the risk of outbreaks.
- Prepare Phase I Environmental Site Assessments and conduct Phase II Site Investigations, consisting of soil, soil vapor, groundwater, and indoor air sample collection.
- Manage radon surveying projects for various multi-family residential clients.
- Conduct hazardous material inventories, environmental audits, and inspections of facilities.

Cheadle Center for Biodiversity and Ecological Restoration (CCBER), Santa Barbara, CA

Restoration Intern (3/16–6/16) / **Environmental Educator** (4/17–6/17)

- Led weekly field trips, and workshops, and created unique lesson plans to increase knowledge about environmental sciences for fifth graders.
- Monitored vegetation and wildlife, managed invasive species, collected vegetation samples for research, and worked on projects independently as well as with a team.
- Managed and led the restoration of a portion of a UCSB-owned wetland.

SKILLS, CERTIFICATIONS, AND ADDITIONAL EXPERIENCE

Languages: R, Python, SQL

Environments: Posit (RStudio), Visual Studio Code, JupyterLab

Technical: Knowledgeable in Git/GitHub, QGIS, Tableau, Data Visualization, Geospatial Analysis, Modeling

Degree/Certifications: Associate of Arts in Liberal Arts & Sciences: Mathematics and Science (May 2015), OSHA 40-Hour HAZWOPER, OSHA 10-Hour Construction Outreach

Additional Experience: Raised over \$15,000 as a Campus Rep. (9/16-5/17) to aid Ecuador and Nicaragua locals