

ALEXANDRIA REED

(661) 309-5335 | areed@bren.ucsb.edu | reedalexandria.github.io | [GitHub](#) | [LinkedIn](#) | Santa Clarita, CA

EDUCATION

Master of Environmental Data Science (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

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 (1/23–6/9)

Informing Forest Conservation Regulations in Paraguay (Chaco)

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

- Assessed land use plan compliance and deforestation rates in the Chaco using geospatial overlays in R.
- Developed a simulation tool in R to evaluate the effects of varying laws in the undeveloped Chaco region.
- Implemented a Random Forest machine learning model in Python predicting future deforestation patterns and generating pixel-wise probabilities of future deforestation.
- Developed an interactive Shiny dashboard for stakeholders 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)

- Compile, wrangle, analyze, and prepare reports of wind and dust data for weekly submissions to regulatory bodies, including the SCAQMD and the DTSC.
- Lead and supervise teams in conducting wastewater surveillance for the presence of SARS-COV-2.
- Manage lead in drinking water projects, ensuring compliance with regulatory standards.
- 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 and industrial 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, ADDITIONAL EXPERIENCE, AFFILIATIONS

Languages/Software: R, Python, SQL, Git/GitHub, QGIS, ArcGIS, Tableau

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

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 Ecuadoran and Nicaraguan locals