Raymond Hunter

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EDUCATION

Master of Environmental Science and Management, Emphasis: *Data Science*, 3.99 GPA (June 2024)
Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)

Bachelor of Science in Ecology and Evolutionary Biology, Highest Honors (December 2020)
Bachelor of Arts in Environmental Studies, Honors (December 2020)
University of California, Santa Cruz (UCSC), 3.84 GPA

SKILLS & CERTIFICATES

Communication: Grant writing, technical writing, budgeting, public presentation, stakeholder engagement
Data Visualization: R/RStudio, R Shiny, Quarto, RMarkdown, CSS/SCSS, HTML, Javascript
Data Science/Management: R/RStudio, Git/GitHub, SQL, JMP, Bash
Modeling/Machine Learning: supervised/unsupervised, fitting, tuning, training/testing, model validation
GIS and Remote Sensing: R, ArcGIS, QGIS
Certificate*: Google Data Analytics* by Coursera (9/2023)

EXPERIENCE

Data Analyst - NOAA Fisheries, (Contract Remote (4/25-pres.)
- Designed and implemented statistical models in R to analyze trends in sustainable fisheries and evaluate commercial fishing sector responses to federal management policies under the Magnuson-Stevens Act, supporting decision making by the Pacific Fishery Management Council.
- Developed interactive dashboards and technical reports to communicate complex findings clearly to federal, state, and regional stakeholders, enhancing stakeholder engagement in policy processes.

Data Analyst - Comunidad y Biodiversidad, (Contract remote 4/25-7/25)
- Designed and deployed a server-based evaluation tool using R Shiny, enabling users to assess the effectiveness of marine protected areas across Mexico.

Data Manager, Masters Capstone, Santa Barbara, CA (3/23–6/24)
NOAA National Marine Fisheries Service (NMFS) Link to Shiny Dashboard
- Conducted geospatial and economic analyses of 180k+ hectares spatial data to model riparian habitat restoration needs, generating cost estimates to support strategic policy and funding decisions.
- Identified critical habitat for federally endangered salmonid species, informing NOAA restoration planning and aligning with Endangered Species Act (ESA) recovery goals.
- Built an interactive R Shiny dashboard to communicate findings to NOAA restoration managers and policy stakeholders, supporting data driven restoration strategies and program implementation.

Teaching Assistant UCSB (9/22-6/24)
- Taught 350+ undergraduate students | *Ecology* | *Environmental Chemistry* | *Environmental Ethics*

Biosecurity Data Scientist Intern – The Nature Conservancy (TNC), Santa Barbara, CA (6/23-9/23)
- Led a comprehensive study including statistical analysis, GIS, report writing, budget management, and fieldwork to address biosecurity weaknesses in the Channel Islands while mentoring an undergraduate.
- Presented findings at the California Islands Symposium (publishing a first-authored scientific paper) to inform local policy makers on potential threats to coastal habitat.

Data Analyst – Yoga Soup, Santa Barbara, CA (part time 9/23-pres.) Link to Shiny App

- Built a user-friendly Shiny App for team management to access, visualize, and interpret company data through reproducible R pipelines that automate analytical workflows on server end
- Developed and executed a robust data storage plan to distribute and archive terabytes of sensitive data

Lab Technician – Sierra Nevada Aquatic Research laboratory, Mammoth Lakes, CA (1/21–6/22)

- Assessed 20+ years of mining impacts on alpine stream biodiversity to evaluate remediation effectiveness under the CERCLA (Superfund) framework, supporting policy compliance for the U.S. Forest Service.
- Managed and analyzed a long-term aquatic invertebrate dataset to support regulatory reporting.

Biologist – Mountain View Biological Consulting, Mammoth Lakes, CA (1/21–6/21)

- Wrote technical environmental compliance reports for contractors, consultants, and land owners summarizing project description and biological activity within the region of interest.
- Communicated project logistics to senior biologists, project managers, and contractors.

Sustainability Educator - Coastal Watershed Council, Santa Cruz, CA (1/20-4/20)

- Educated the public through restoration events, school activities, and attending public counsels on how upstream actions impact native river ecology and wildlife throughout Santa Cruz County.

Research Assistant – Palkovacs Lab UCSC, Santa Cruz, CA (9/19-12/20)

- Designed a study measuring the ecological consequences of wildfires on Steelhead across 3 different streams in Big Sur, California including survey design, field work, statistical analyses, and science writing

REU Intern – University of Puerto Rico, Rio Piedras, PR (6/19-9/19)

- Designed and led a research project assessing human disturbance impacts on 25+ freshwater taxa in low-income communities, advancing understanding of environmental equity and watershed resilience.
- Collected and analyzed hundreds of biological samples while managing a limited fieldwork budget, and communicated findings through a research report presented at the Puerto Rico REU symposium

ADDITIONAL DATA SCIENCE PROJECT EXPERIENCE

Applying Supervised ML Classification Approaches to Landuse Cover (9/23–12/23)
Master's Geospatial and Remote Sensing Project | Skills: R, Git, Machine Learning | GitHub repository | Blog

- Programmed a workflow to train robust supervised ML decision tree classification models utilizing 6 multispectral resolution bands to predict 100,000s of acres of landuse cover in Santa Barbara, CA
- Subsetted LandSat multispectral rasters into identified parcels to train county raster model predictions

Identifying Potential Marine Aquaculture Habitat Along the West Coast (9/23–12/23)
Master's Geospatial and Remote Sensing Project | Skills: R, Git, Spatial | GitHub repository | Blog

- Leveraged spatial joins/subsetting, zonal statistics, and transformation of raster/vector data to map and communicate exclusive economic zones ranked by suitable habitat of varying marine organisms
- Programmed a streamlined pipeline that generates species habitat maps with minimal function inputs

HONORS/AWARDS/GRANTS

Bren Academic Excellence Recruitment Fellowship (2022-24) | NRS Field Science Fellowship (2020) | Future Leaders in Coastal Science Award (2019) | Kathryn D. Sullivan Impact Award (2019) | Norris Center Student Natural History Award (2019) | Richard Cooley Award (2019) | National Society of Collegiate Scholars (2017)