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

Data Visualization: R/RStudio, R Shiny, Quarto, RMarkdown, CSS/SCSS, HTML, Javascript, Tableau
Data Wrangling: Fluency in *tidyverse*, cleaning, transformation, subsetting, interpolation, EDA, validation
Data Science/Management: R/RStudio, Git/GitHub, SQL, Python/VSCode, JMP, Bash
Modeling/Machine Learning: supervised/unsupervised, fitting, tuning, training/testing, model validation
Remote Sensing & Geospatial Analysis: R (*sf, terra, raster, stars, leaflet*), ArcGIS, QGIS, Python and GEE
Communication: Science/technical writing, public presentations/slide decks, interdisciplinary collaboration
Certificate*: Google Data Analytics* by Coursera (9/2023)

EXPERIENCE

Data Analyst - NOAA Fisheries, remote contract (4/25-pres.)
- Developed reproducible data pipelines in R, incorporating statistical and machine learning methods to analyze sustainable fisheries data and assess the effectiveness of federally managed fisheries.
- Built interactive R Shiny dashboards, apps, and public web pages to communicate analytical findings and provide accessible fisheries data to stakeholders.
- Integrated SQL databases with R to automate data extraction, modeling, and reporting workflows.

Data Analyst - Comunidad y Biodiversidad, remote contract, (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)
Client: NOAA National Marine Fisheries Service (NMFS) Link to Shiny Dashboard
- Led the development of reproducible analytical pipelines in R, leveraging functional programming and version control to process complex spatial data and model salmon habitat restoration costs and benefits.
- Designed and deployed an interactive Shiny dashboard with dynamic maps and visualizations to effectively communicate key ecological and economic insights to NMFS stakeholders.

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 data collection, GLM classification modeling, and report writing to address biosecurity weaknesses for TNC while mentoring an undergraduate
- Presented findings at the California Islands Symposium and Point Conception Institute symposium

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)

- Quantified 20+ years of mining impacts on alpine stream taxa to inform USFS on remediation success

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

- Utilized ArcGIS and Survey123 to map biologically active areas and record endangered species encounters
- Summarized environmental reports to inform contractors on endangered species status in work zones

Research Assistant – Palkovacs Lab UCSC, Santa Cruz, CA (9/2019-12-20)

- 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)

- Collected stream taxa data using biological survey design, performed non-parametric statistical analyses utilizing PCA with visualizations in JMP, and presented final report to academics at the REU Symposium
- Quantified disturbance impacts on diversity of freshwater meiofauna taxa in low income communities

ADDITIONAL DATA SCIENCE PROJECT EXPERIENCE

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

A Spatial Analysis of Houston Blackouts and the Communities it Affected (9/23–12/23)
Master's Geospatial Analysis and Remote Sensing Project | Skills: R, Git, Spatial | GitHub repository | Blog

- Queried large data sets using SQL to streamline workflow and minimize computational expenses
- Utilized remote sensing and spatial data analysis techniques to seamlessly identify 1,000's of homes and their demographic information in Houston that experience blackouts from the Feb. 2021 storms

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

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)