Charles Hendrickson

(619) 997-6873 | c_d_h@bren.ucsb.edu | charleshendrickson.github.io | GitHub | LinkedIn |Santa Barbara, CA

EDUCATION

Master of Environmental Data Science, 3.84 GPA (Expected June 2022)
Bren School of Environmental Science & Management – University of California, Santa Barbara

Highlighted Coursework:
Scientific Programming Essentials
Analytical Workflows and Scientific Reproducibility
Metadata Standards, Data Modeling and Data Semantics
Team Science, Collaborative Analysis and Project Management
Meta-analysis and Systematic Reviews

Bachelor of Science in Marine Biology, 3.78 GPA & Graduated with Honors (June 2021)
University of California, Santa Cruz

Honors: Dean's Honors for 2017 (Fall), 2018 (Fall & Winter), 2019 (Fall), 2020 (Spring), 2021 (Winter)
Awards: Future Leaders in Coastal Science Award (2019 - 2020)
Leadership/Involvement: Competitive Surfing Sports Club (Treasurer), Marine Science Club

Master's Capstone Data Science Project

A web-based application for visualizing spatial and temporal patterns of anthropogenic stressors on coral reefs in the lagoons of Moorea, French Polynesia (1/22 - 6/22)
Role: Product Leader | Client: Moorea Coral Reef Long Term Ecological Research project (MCR LTER)
Deliverables: R Shiny app, GitHub Repository, Design and Implementation Plan, Technical Documentation, Final Project Presentation

- Develop an interactive web-based application from R using R Shiny for visualizing temporal data on nutrients and coral bleaching, as well as using the Leaflet package to create interactive heat maps of spatially explicit data
- Deploy a final product that will be used by MCR LTER researchers, UC Santa Barbara undergraduate courses, and the community of Moorea as a tool to visualize spatial data that can inform local management decisions
- Lead team in meeting all deadlines, project goals, and determining the best plan of action when debugging R Shiny app
- Collaborate with client and faculty advisors to ensure that the final product meets project goals

DATA SCIENCE SKILLS

Programming Languages: Proficient at coding in R (RStudio), Python (Jupyter), and SQL
Version Control and Project Management/Collaboration: Experienced in using GitHub and GitHub Issues
Citation Management: Trained in organizing, citing, and sharing scientific literature using Zotero

MARINE & DATA SCIENCE EXPERIENCE

Stanford University Data Science Fellow (6/22 - 8/22)
Stanford University Data Science for Social Good Fellowship Program, Remote

- Fellows work full-time on a data science project with technical mentorship from Stanford researchers and advanced graduate students.
- Fellows work closely with their partner, meeting weekly, and their work will culminate in a final project handoff and presentation.
- Fellows make progress on real-world problems with social impact, gain technical training, and participate in discussions on project-related and data science topics.

Scripps Institution of Oceanography Research Fellow (6/20 - 8/20)
Scripps Institution of Oceanography Undergraduate Research Fellowship, UC San Diego, CA

- Extracted demographic data from stereo video footage of Nassau grouper spawning aggregations
- Collaborated with faculty advisors on data management plan, data structure and documentation
- Conducted a statistical analysis and developed data visualizations using RStudio
- Presented research to 20+ Scripps faculty members

Salmonid Life History Lab Member (1/20 - 3/20)
Palkovacs Lab, Dept. of Ecology and Evolutionary Biology, UC Santa Cruz, CA

- Managed data quality control for 1200+ steelhead trout samples (2hr/week)
- Documented field data and quality control notes on a cloud-based datasheet
- Collaborated with research team to develop an improved data processing workflow

National Oceanic and Atmospheric Administration (NOAA) Fisheries Intern (1/20 - 3/20)
NOAA Fisheries Ecology Division, Southwest Fisheries Science Center, Santa Cruz, CA

- Managed data collection for coho salmon and steelhead trout DNA, scale samples, and field data (12hr/week) at the Scott Creek fish weir
- Tagged 20+ salmonids with passive integrated transponder tags and FLOY tags
- Used excellent teamwork, problem solving, and time management skills to successfully complete project goals each day

ADDITIONAL MARINE BIOLOGY EXPERIENCE

Volunteer Research Diver - **Global Visions International, Fiji Marine Conservation Expedition** (6/19 - 7/19)
As a PADI certified coral reef research diver, I conducted SCUBA surveys to collect long-term data on Fijian marine invertebrates. I then informed community leaders in Uluibau, Fiji with my data and supported them in developing a sustainable resource management strategy.

National Science Foundation (NSF) - STEMSEAS - Student Crew Member (8/19 - 9/19)
As a STEMSEAS crew member aboard the R/V *Sikuliaq*, I completed a research cruise from Kodiak, Alaska to Newport, Oregon. I collected data on the pH, alkalinity, salinity, CO2, and O2 concentration of seawater samples, analyzed seafloor sediment core samples, and presented an NSF post cruise project. I also documented metadata on remotely operated and autonomous vehicle operations for 20+ hours in the control room.

Brown University Environmental Leadership Lab, Alaska (7/16 - 8/16)
I studied Alaska Native history and cultural preservation surrounding food sources such as salmon, whales, and seals. I engaged with stakeholders over the impacts of oil and gas extraction on Alaska Native culture, economics, and the environment.

Tijuana River National Estuarine Research Reserve Stewardship (1/15 - 12/15)
As a long-term steward, I was responsible for clean-up efforts, trail maintenance, invasive plant species removal, native plant propagation, field observations, and data collection on restoration projects.