Alaina Smith, Ph.D.

+1 (571) 425 - 0046 | anoelsm@gmail.com | San Diego, CA, USA 92102
Willing to Relocate: Yes | **% Willing to Travel:** 60%
https://www.linkedin.com/in/alaina-noel-smith/

SUMMARY

Seasoned data scientist with proven expertise in analyzing and interpreting large, spatial and temporal datasets to extract actionable insights. Demonstrated ability in ensuring data integrity accuracy through robust quality control processes and translating complex research into digestible formats. Skilled cross-team collaborator, recognized for leadership in diversity initiatives.

COMPETENCIES	PROGRAMMING LANGUAGES	SOFTWARE
Data Analysis (8 yrs)	R (8 yrs)	Advanced Excel (4 yrs)
Data Visualization (8 yrs)	Shell Scripting (Bash) (4 yrs)	Adobe Illustrator (4 yrs)
Project Management (6 yrs)	MatLab (2 yrs)	GitHub (2 yrs)
Quality Control (6 yrs)	LaTeX (1 yr)	ArcGIS (1 yr)
Machine Learning (1 yr)	Python (<1 yr)	

PROFESSIONAL EXPERIENCE

Consultant, *Freelance*   **Dec. 2023 – Present**

- Conduct quality control and data analysis on novel datasets and used expertise in R to build data visualizations for publication in high-level scientific journals.
- Provide expert advice on sustainable fisheries management practices, taking into consideration local regulations, environmental conservation goals, and climate change predictions.
- Stay well-informed of the latest research and developments in oceanography and management to ensure the application of best practices.

Data Scientist, *University of California, San Diego*   **Sept. 2017 – Jul. 2023**

- Analyzed and interpreted large environmental, metagenomic, and fisheries-based datasets to derive actionable insights, culminating in the publication and/or preparation of four manuscripts.
- Implemented robust quality control processes to ensure data integrity and accuracy resulting in a reduction in data errors and improved decision-making across teams.
- Built computational, statistical, and theoretical models to investigate environmental effects on microbial ecosystems and biodiversity driving novel scientific research.
- Leveraged data visualization tools and techniques to create impactful presentations and publications; effectively conveying intricate data patterns and trends to both technical and non-technical audiences.

Teaching Assistant, *University of California, San Diego*   **Sep. 2019 – Mar. 2023**

- Facilitated weekly discussion sections using an active learning approach, enhancing the understanding of course material for 50+ students.
- Balanced multiple responsibilities, such as teaching sessions, grading, office hours, and one-on-one mentoring by prioritizing tasks, meeting grading deadlines.
- Led a team of 3+ teaching assistants by coordinating responsibilities and providing guidance on effective teaching methods, improving student learning outcomes.

Data Analyst, *University of California, San Diego*   **Feb. 2017 – Jul. 2017**

- Executed data quality checks and performed exploratory analysis on large spatial datasets, driving project decisions.
- Produced visualizations and insights as requested, improving the quality of executive reports.
- Facilitated cross-team collaboration by translating code between R and MatLab, increasing project efficiency and communication.

Data Science Intern, *Monterey Bay Aquarium Research Institute* **Jun. 2016 – Aug. 2016**
- Processed and analyzed Remote Operating Vehicle (ROV) data to study marine microorganism dominance patterns, increasing data accessibility across teams.
- Identified spatial and temporal trends in fresh datasets to design research methodologies for future projects.
- Independently managed a research project, presenting findings at an organizational conference.

Research Assistant, *University of Hawaii at Manoa* **Mar. 2015–Dec. 2016**
- Developed a model examining resource variability in phytoplankton diversity.
- Secured internal funding through a well-received proposal.
- Compiled research into a comprehensive thesis, later published as a manuscript.

EDUCATION

Doctor of Philosophy (Ph.D.), *Oceanography* **Sept. 2017–May 2023**
University of California - San Diego
Bachelor of Science (B.S.), *Global Environmental Science* **Aug. 2013–Dec. 2016**
University of Hawaii at Manoa

VOLUNTEER WORK

Volunteer Scientist and Climate Educator at the *Ocean Discovery Institute* (***2020 – Present***)
Hack-a-thon Team Lead for 5+ undergraduates on fisheries research using in Python (***2020***)
Assistant organizer and science content expert for the NOSB Garibaldi Bowl (***2020***)
Co-Director of diversity-focused *Women and Minorities in Science* student group (***2019 – Present***)
Guest Lecturer for SIO 134 on phytoplankton modeling using R (***2019 – Present***)
Mentor 6 undergraduate and graduate students on data analysis in R (***2018 – Present***)
Judge for the San Diego County Science Fair (***2018 – 2021***)
Assistant Conference and Logistics Coordinator for *DISCO/PODS* (***2016***)

PUBLICATIONS & PRESENTATIONS

Smith, A. N. et al. *In prep.* Microbial niche change in the California Current Ecosystem.
Cusick, A.M., **Smith, A. N.,** Mascioni, M., and others. *Submitted (2024).* Distinct spatio-temporal patterns in microeukaryote phytoplankton communities revealed along nearshore Antarctic Peninsula. *Frontiers in Ecology and Evolution*.
Smith, A. N. and Andrew D. Barton. (2024). Effects of temperature variability and dispersal on phytoplankton realized temperature niches. *Ecology and Evolution.* http://doi.org/10.1002/ece3.10882
Smith, A. N., et al. (2021). Comparing *Prochlorococcus* temperature niches in the lab and across ocean basins. *Limnology and Oceanography*. https://doi.org/10.1002/lno.11777
5th Trait-based Workshop – Knoxville, TN (Feb. 2021)
Ocean Sciences – San Diego, CA (Feb. 2020)
Scripps Student Symposium – La Jolla, CA (Sept. 2019) ****Winner of best oral presentation***
Smith, A. N. and Kyle F. Edwards. (2019). Maintenance of functional diversity through multiple timescales of resource integration. *Oikos*. https://doi.org/10.1111/oik.04937