Osanna Drake

osanna.drake@duke.edu ● 503.422.8791 ● linkedin.com/in/osanna-drake

Letter of Application: Duke Center for Computational Thinking – Ph.D. Computational Fellowship

Dear reviewer,

I am writing to express my strong interest in the Ph.D. Computational Fellowship offered by the Duke Center for Computational Thinking. As a first-year Ph.D. student in Marine Science and Conservation, I am eager to develop my technical skills while applying them to my research. Furthermore, the fellowship's focus on project-based, team-based learning is an ideal fit for my career goals.

Through most of my academic journey, I actively avoided computational subjects due to the hyper-masculine 'tech culture' and perception that I (a neurodivergent queer woman from a low-income family) would not excel at programming. However, the COVID-19 pandemic put an end to my fieldwork-based job it highlighted the importance of having skills that can be used remotely, leading me to take some introductory courses in data science and computer programming, despite my hesitation. While the courses were not geared towards environmental science, or even research at all, I discovered a passion for coding and found I have a natural aptitude for computational problem-solving.

I soon graduated and began a fellowship at Oceana, analyzing big data to monitor illegal fishing and inform policy. Although I gained valuable knowledge and experience, I lacked feedback on my technical work. Now, as I start my Ph.D. program and encounter new data structures, I would benefit tremendously from the solidify formal foundation granted by the Computational Fellowship.

I am particularly excited to elevate my analysis and visualization by harnessing version control for reproducible workflows. The methods covered apply across domains, and I look forward to learning strategies for handling qualitative data as well. Lastly, the fellowship's final project, involving an oral presentation and visualizations, will be a fabulous way for me to interpret my data and communicate it effectively. Communication is essential for driving positive change yet overlooked in technical curricula. By participating in this fellowship, I will be better equipped to share my research with a broad audience and translate my findings into actionable solutions for the ocean and the people who need it most.

Our world is experiencing a technological revolution, and it is critical that aspiring environmental scholars and practitioners can the leverage computational tools necessary to solve the problems of tomorrow. The Computational Fellowship provides a gateway to making meaningful contributions in marine science and conservation, and I am ready to take advantage of this opportunity.

Thank you for considering my application. I am confident that the Computational Fellowship will not only enrich my education, but also transform my passion, curiosity, and joy into the makings of a future leader.

Sincerely,
Osanna Drake