Explain why this opportunity interests you and how it will impact your educational and professional goals. Describe your relevant research, technical, or professional skills and experience that are applicable to this opportunity.

Currently a second-year Ph.D. student, I have been working on creating statistical models that can account for spatial confounding and estimate causal effects from multiple exposures to multiple outcomes. While we are still in the stage of running simulations, we intend to apply the final model on real data about environmental exposures and health outcomes. This project aligns well with my current research. Furthermore, after graduation, I hope to work as a researcher on projects that are related to environmental, climate, and public health applications. This opportunity will give me crucial experience for my future career.

During my previous and current academic training, I have gained skills and experience applicable to this opportunity. I am experienced in coding; I use R to build my statistical models from scratch and have previously used Python and Java. I have been working on my current research with my advisor (Brian Reich) and mentor (Yawen Guan) for a year, during which we consult other publications, work on mathematical derivations, run simulations, present the project in less public settings, and essentially solve one problem after another. I am also experienced in writing, editing, and presentations from my previous training in the humanities. In short, I am confident that I have the relevant experience and skills for this position, and this position will enrich my academic journey.