

Dear Hiring Team,

My professional and academic background is in physics which means my primary skills and interests are in finding, formulating, and solving difficult and consequential problems. I am passionate about learning new skills and applying these skills to real world problems. I am also passionate about meeting and collaborating with professionals in fields related to physics, engineering, data science, AI, machine learning, and scientific research in general. In my experience, these people tend to have a uniquely deep understanding of their work; and this is something I admire and strive for in general.

My current experience is primarily in building and validating coarse-grained models for macromolecules using a Langevin equation or the Ornstein-Zernike equation. This typically involves running one or many simulations of macromolecules and using statistics from simulation data to construct the model. To do this work well, I have developed a strong understanding of the underlying structures from which this data is generated, and of the components of the corresponding theoretical model that they inform. Additionally, these datasets can be large so care must be taken to process them efficiently. Through my research on macromolecules, I have developed a strong ethic for careful scientific research and precise, efficient data analysis.

The Sr. Intern position represents a huge step towards my professional goals and personal interests. I understand that much of my previous experience is not directly relevant to some of the specific duties performed in this position. However, I believe that good scientific training instills an aptitude and enthusiasm for learning technical skills and deep analytical thinking. I believe these traits make me a strong and valuable candidate for this position.

Sincerely,
Jeremy Welsh-Kavan