Dear Hiring Manager,

I recently viewed your job listing for the Modeling and Simulation Software Development Engineer position. I have extensive experience designing and completing research projects as evidenced by my publication record.

I have extensive experience conducting statistical analysis in the academic setting, using Matlab as my primary computational tool.

For the past four years of my PhD work, I have performed a wide-range of calculations in high-performance computing environments. My PhD thesis work has focused on using data analysis of molecular dynamics simulations in the time and spectral domain, which has lead to several peer-reviewed publications on the subject. The work required a strong understanding of linear algebra and numerical methods for atomistic simulation, and Matlab was my primary tool for performing the analysis.

My MS thesis work studied turbulent flow as a stochastic dynamical process, and my coursework focused on non-linear and statistical analysis. By studying the spatio-temporal correlations of a turbulent flow, we were able to demonstrate the similarities and differences of a turbulent flow to a “white-in-time” process such as Brownian motion, leading to peer-reviewed publication.

I have extensive experience performing research projects in collaboration on a global scale, including programming-based projects. I am committed to teamwork and communication, as I have strived to improve communication between myself, members of my research group, and the research community.

I look forward to hearing from you.

Thank you,

Jason Larkin