

Department of Chemical, Biological, and Materials Engineering
College of Engineering
University of South Florida
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URL: Simmons Research Group

Dear Neomorph, Inc. Hiring Committee,

March 29, 2025

I am writing to express my strong interest in the **Senior Scientist** — **Computational Chemistry** position at Neomorph. With a Ph.D. in Chemical Engineering and a postdoctoral fellowship, I have 7 years of experience in high-throughput molecular modeling and free energy analysis—along with 4 years of experimental work in drug delivery and liposomal formulation—I bring a multidisciplinary approach and passion for solving complex scientific challenges through computation.

While my background does not stem from a traditional drug discovery pipeline, my expertise is highly transferable to your work in targeted protein degradation and molecular glue discovery. I have developed and deployed simulation frameworks to study phase behavior, molecular relaxation, and structural transitions in polymer systems—work that mirrors the goals of small molecule design and binding optimization. My projects have involved modeling complex, high-parameter molecular systems using GPU-accelerated Monte Carlo simulations (C++/CUDA), extensive scripting with Python and Bash, and analysis of free energy landscapes, positioning me well for applications such as ligand scoring, ADMET prediction, and molecular design.

What I believe sets me apart is the combination of **deep computational expertise** and **hands-on experimental insight**. During my M.S. research, I developed ultrasound-sensitive liposomal drug carriers and nanoparticle formulations to improve breast cancer treatment outcomes—giving me first-hand understanding of the biophysical, chemical, and clinical variables that impact therapeutic design. This foundation has since been complemented by my work in molecular simulations, where I have led NSF-funded HPC projects, mentored research teams, and presented at over 27 conferences internationally.

I am inspired by Neomorph's mission to transform treatment paradigms, and I am eager to contribute computational tools and thinking that can accelerate discovery and deepen mechanistic insight. Thank you for considering my application. I would be delighted to speak further about how I can support your drug discovery efforts at Neomorph.

Kind regards,

Pierre Kawak, Ph.D. Postdoctoral Scholar

Chemical, Biological and Materials Engineering **President**, Postdoctoral Scholar Association University of South Florida pskawak@gmail.com