Department of Chemical, Biological, and Materials Engineering
College of Engineering
University of South Florida
3802 Spectrum Boulevard, BPB213
Tampa, FL 33612
URL: Simmons Research Group

Dear Schrödinger Hiring Team, April 7, 2025

I'm excited to apply for the **Scientific Software Developer** position on the **Force Fields team** at Schrödinger. With 11+ years of experience developing modular molecular simulation tools in Python and C++, I bring a unique blend of deep domain knowledge and robust engineering practices to support atomistic modeling at scale.

My work focuses on building physics-based models and simulation workflows that help explore complex material behavior with experimental accuracy. I've developed custom Monte Carlo and molecular dynamics frameworks, and I've tailored force fields–particularly OPLS–to model glass transition in copolymers, optimizing material performance without altering feedstock or processing. My work integrates test-driven development, unit-tested C++ and Python modules, and high-throughput HPC automation to ensure reliability across workflows spanning 500+ simulations and 50+ TB of data.

What draws me to Schrödinger is the opportunity to collaborate with brilliant scientists while contributing clean, scalable code to the tools that power chemical and materials discovery. I'm passionate about translating scientific challenges into elegant software solutions–and I'd be thrilled to bring that mindset to your Force Fields team.

Thank you for considering my application. I look forward to the possibility of contributing to Schrödinger's mission to improve human health through innovative computational science.

Kind regards,

Pierre Kawak, Ph.D.
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Chemical, Biological and Materials Engineering
President, Postdoctoral Scholar Association
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