

PRANSHU TRIPATHI

Software Development Engineer

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COVER LETTER

Dear Hiring Manager,

I am writing to express my interest in software development roles where I can contribute to building high-performance, reliable systems. With hands-on experience across full-stack and systems-level development, I've consistently enjoyed working at the intersection of engineering rigour and real-world impact.

At Schrödinger, I've had the opportunity to work on core product features, backend infrastructure, and AI-powered tools. I recently led backend development for a voice-enabled LLM assistant, built using FastAPI, GCloud Run, and Docker, now deployed internally across teams. Previously, I improved core molecular interaction speeds by hundreds of times through a modular C++ library, streamlining operations that once took minutes to just seconds. These projects have strengthened my belief in the value of well-structured, maintainable systems.

Throughout my roles, I've used a wide range of technologies—from FastAPI, Terraform, and Kubernetes, to Spring Boot, React, and Vulkan graphics. My foundation in C++, Python, and design principles has enabled me to contribute across layers—be it enhancing rendering performance, redesigning legacy codebases, or improving integration between services. The patterns I've used in production—Factory, Strategy, Adapter, among others—have helped simplify complex workflows and make them more extensible.

Outside work, I continue to build and maintain projects that align with my interests in scalable architecture and developer tooling. Whether it's deploying microservices to GKE, integrating CI/CD using Travis CI, or building an event-driven ticketing platform, I find satisfaction in bringing a concept to full deployment. I also hold certifications in modern C++ design patterns, multithreading, Docker, Kubernetes, and micro-frontends.

I'm keen to join a team that values clarity in design, takes pride in building thoughtful tools, and encourages engineers to grow with their systems. I look forward to the opportunity to contribute to such an environment and continue learning alongside skilled colleagues.

Thank you for considering my application.

Warm regards,
Pranshu Tripathi