

# Cover letter

Kailong Duan

Address: Dallas, TX, I am open to relocation within the United States.

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## Dear Hiring Manager

With **4 years of professional software engineering experience** and a Master's degree in Software Engineering from SMU, I am writing to express my interest in the Software Engineer position on your team. Unlike typical new graduates, I offer the technical maturity to architect, build, and deploy enterprise-grade applications immediately.

My technical foundation is truly full-stack, bridging the gap between complex backend logic, cloud infrastructure, and intuitive user interfaces:

- **Modern Front-End Engineering:** I have extensive experience building responsive, high-performance web interfaces. In my previous roles, I leveraged both **Vue.js** and **React.js** alongside **Tailwind CSS** to develop modular Single Page Applications (SPAs). These solutions supported over 10,000 daily active users with seamless cross-browser compatibility.
- **Backend & Cloud Architecture:** On the server side, I specialize in **Java (Spring Boot)** and **Python** to build scalable microservices. I have successfully deployed full-stack applications on **AWS (using EC2, RDS, and S3)**, optimizing high-traffic systems to handle peak loads of 500+ requests per second.
- **DevOps & Infrastructure:** I believe in owning the entire software lifecycle. I am proficient in managing **Linux** environments and have engineered automated CI/CD pipelines using **Jenkins, GitLab, and Docker**. These optimizations reduced deployment lead times by **35%**.

**Adaptability & Continuous Innovation:** My greatest asset is my ability to absorb new technologies instantly. For example, last winter I decided to expand my language toolkit.

**Leveraging my strong computer science foundation, I mastered Python syntax in just one day and was solving complex algorithmic problems within a week.**

Currently, I am applying this Python proficiency to develop experimental applications utilizing **Large Language Models (LLMs)**, ensuring my engineering toolkit remains at the cutting edge of industry trends.

I am completing my Master's at **Southern Methodist University** and will be ready to

join your team in **May 2026**. I hold **STEM OPT work authorization valid for three years**, allowing me to work in the U.S. without initial sponsorship. I am eager to leverage my full-stack experience to drive results for your organization.

Thank you for your time and consideration.

Sincerely,

**Kailong Duan**