

Cover letter

Kailong Duan

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

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Dear Hiring Manager

I am writing to express my strong interest in the Software Development Engineer role. With over four years of professional experience in full-stack development using **Java**, **Python**, and modern frameworks like **Vue.js** and **React.js**, coupled with specialized graduate-level study in distributed systems, my background aligns perfectly with your need for engineers who deliver scalable and efficient solutions. Moreover, if your team requires additional technologies beyond my current expertise, I am confident in my ability to quickly learn and seamlessly apply them to production.

Throughout my career, I have focused on translating robust architecture into quantifiable operational improvements. My most significant impact was during my tenure at Truelore, where I led the development of a large-scale internal management system based on microservices architecture (Spring Boot). This initiative directly contributed to business efficiency:

- **Architectural Efficiency and Cost Reduction:** Designed and deployed a microservices system that successfully lowered the annual system operational costs by **15%** by optimizing cloud resource allocation and enhancing system efficiency.
- **Delivery Speed and Automation:** Accelerated the software delivery lifecycle by redesigning CI/CD pipelines using Docker and Jenkins, which reduced the deployment lead time by **40%** and increased deployment frequency by 3x, directly supporting faster feature releases.
- **Scalability and Security:** Integrated secure payment APIs for WeChat mini-programs, enabling high-volume, reliable transaction processing for **over 100,000 daily active users**.

Earlier in my career at iSoftStone, I mastered front-end engineering by building responsive Single Page Applications (SPAs) using Vue.js. I applied foundational software design principles, such as high cohesion and low coupling, which resulted in a **35% increase** in development speed for new front-end features and ensured superior code maintainability across projects.

Beyond professional experience, I maintain a passion for algorithmic rigor, demonstrated by my competitive programming rating of **1850+ (Knight)** on LeetCode.

Currently pursuing my Master's degree at Southern Methodist University, I am deepening my expertise in emerging fields including distributed systems, cloud computing (**AWS**), and foundational Large Language Models (**LLMs**). I am confident that my blend of practical engineering achievements, validated problem-solving skills, and forward-looking academic focus makes me a powerful candidate ready to contribute to 's innovative mission

I welcome the opportunity to discuss how my experience in building scalable, cost-efficient systems can directly support your team's mission.

Sincerely,

Kailong Duan