

Le Hoang (Harry) Tran

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Summary

A Backend Engineer with over 4 years of experience building fintech backend systems. Specialized in scalable, event-driven, cloud-native architectures and performance optimization. Delivered products that serves millions of users. Available for a full-time 2027 position in software engineering.

Education

George Mason University

MSc in Computer Science | GPA: 4.0/4.0

Aug 2025 – (Expected) Dec 2026

Fairfax, VA, USA

Hanoi University of Science and Technology

BSc in Information Technology | GPA: 3.62/4.0 (top 5%)

Aug 2017 – May 2021

Hanoi, Vietnam

Professional Experience

LINE Technology

Backend Software Engineer

Jun 2025 – Aug 2025

Hanoi, Vietnam

- Researched a **fault-tolerant online data migration** solution for 10TB+ data from MySQL + Cassandra to a unified MySQL architecture using dual-write and backfill strategy.
- Leveraged **AI-assisted development tools** for source code onboarding, automated unit/integration tests, and early-stage code review, increasing development velocity by 30%.

Viettel Group

Backend Software Engineer

May 2021 – Jun 2025

Hanoi, Vietnam

Customer Engagement Platform

- Designed and implemented an **in-house customer engagement platform** delivering **100M+ events/day**, supporting personalized marketing campaigns via push notifications, in-app messaging, and voucher distribution.
- Increased user segmentation creation throughput from **500 to 35,000 QPS** by introducing **Roaring Bitmap-based indexing and caching** layers, reducing **p95 latency by 80%**.
- Implemented **business workflow automation** using Camunda, enabling non-technical operations team to configure business workflows without engineering intervention.
- Monitored production systems using Grafana, **identifying and implementing performance optimizations** proactively across configuration tuning, caching, and microservices architecture.
- Led a team of 4 backend engineers; driving sprint plannings, system design and code reviews to continuously extend system functionalities, in reaction to meeting user needs and growing demands for performance and scalability.

Data Tracking System

- Designed and developed a **high-throughput event tracking system** for mobile and web platforms, replacing third party's licensing costs annually.
- Implemented a CMS and online tracking rule configuration module, supporting **3,000+ dynamic tracking rules**.
- Optimized rule validation engine by implementing a **decision-tree based rule evaluator**, reducing data-capture latency by 30%.
- Built **reactive APIs using Spring WebFlux**, processing **150M+ events/day** with improved throughput and reduced response times under peak load.

Smart Authentication System

- Designed and delivered **Smart OTP** solution for **20M+ users**, replacing SMS OTPs and **saving \$200K+ annually** while improving authentication reliability.
- Implemented **secure key exchange, OTP generation, and digital signature mechanisms** across critical APIs, strengthening **authentication and API security**.
- Implemented **mobile security hardening** (code obfuscation, root/jailbreak/tamper detection) using native C/JNI, passing enterprise-level security audits.

Skills

Languages: Java, JavaScript, Python, C

Backend: Spring Boot, Apache Kafka, Camunda, REST, gRPC, Unit & Integration Testing, Microservices

Databases: MySQL, MongoDB, Redis/Valkey, Caffeine, Elasticsearch, MinIO, ClickHouse

Familiar with: AWS, Docker, Kubernetes, ELK, k6, Grafana, Keycloak, CI/CD, SDLC, AI-assisted development

Certificates

AWS Certified Solutions Architect – Associate

Sep 2023

Oracle Certified Java SE 8 Programmer

Apr 2023