Le-Hoang Tran

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Summary

Backend Software Engineer with 4+ years of experience building large-scale backend systems. Specialized in high-concurrency, low-latency, cloud-native infrastructure and performance optimization. Delivered products serving over 20 million users.

Experience

LINE Technology Vietnam **Jun 2025 – Aug 2025**

Backend Software Engineer *Hanoi, Vietnam*

- Implemented an **online data migration solution** for **10TB+** of data from LINE and Yahoo systems to a unified MySQL database using a dual-write and backfill strategy.
- Applied **AI-assisted development tools** and prompt engineering for codebase onboarding, automated unit & integration tests, and early-stage code review, increasing development velocity by 30%.

Viettel Digital Finance **May 2021 – Jun 2025**

Backend Software Engineer *Hanoi, Vietnam*

Customer Engagement Platform | *Java, Spring Boot, MariaDB, Kafka, Redis, ClickHouse, Kubernetes*

- Architected and built an **in-house marketing platform** delivering personalized campaigns to **20M+ users** through push notifications, in-app messaging, and reward distribution, processing **100M+ events daily** on **Kafka**.
- Increased user segmentation throughput from **500 to 35,000 QPS** and reduced **p95 latency by 80%** by introducing a **Roaring Bitmap**-based solution and multi-layer caching.
- Engineered a **Camunda** (BPMN) workflow orchestration module enabling non-engineering operations teams to configure and run **200+** multi-step marketing workflows per month.
- **Led a team of 4 backend engineers** over 8 months through Agile sprint planning, system design, and peer code reviews, guiding technical decisions as feature scope and user demand grew.
- Owned end-to-end observability for **20+ microservices** in **Grafana**, identifying performance bottlenecks and improving reliability through configuration tuning, caching strategies, and microservice patterns.

Data Tracking System | *Java, Spring WebFlux, Kafka, Redis*

- Designed and delivered a high-throughput **in-house event tracking system** for mobile and web platforms, processing **150M+ user events daily** and replacing a third-party tracking provider to **reduce licensing costs**.
- Reduced event validation latency by **30%** by replacing linear rule matching with a **decision-tree** validation engine supporting **3,000+** dynamic rules configurable online.
- Built non-blocking ingestion REST APIs with **Spring WebFlux**, sustaining **1,700+ RPS** on average while reducing thread-per-request overhead.

Smart Authentication System | *Java, Spring Boot, C/JNI, Android*

- Collaborated on the research and delivery of an **app-based OTP authentication** solution for **20M+ end users**, eliminating reliance on SMS OTPs and **saving over $200K annually**.
- Implemented **secure key exchange, OTP generation, and digital signature** mechanisms across critical APIs, meeting internal cryptographic and security-review requirements.
- Hardened the Android client application with native **C/JNI** obfuscation and root/jailbreak/tamper detection, passing **enterprise-level security audits**.

Education

George Mason University **Aug 2025 – Dec 2026 (Expected)**

M.S. in Computer Science, GPA: 3.9 / 4.0 *Fairfax, VA*

Hanoi University of Science and Technology **Aug 2017 – May 2022**

B.S. in Information Technology, GPA: 3.62 / 4.00 (top 5% of cohort) *Hanoi, Vietnam*

Skills

Programming: Java, Python, C, JavaScript
Backend: Spring Framework, Spring Boot, Microservices, REST, gRPC, Camunda, JUnit, Mockito, Testcontainers
Infra & Data: MariaDB, MySQL, Apache Kafka, Redis, MongoDB, Elasticsearch, MinIO, ClickHouse
Platform & Ops: Kubernetes, Docker, Jenkins, Grafana, ELK, K6, Linux, Bash, Git/GitHub
AI Tooling: Claude Code, OpenAI Codex, Agentic Workflows, Prompt Engineering

Certifications

AWS Certified Solutions Architect – Associate Sep 2023
Oracle Certified Java SE Programmer Apr 2023