

Professional Summary

Backend software engineer with 2.5+ years building and maintaining high-scale payment systems at Visa. Proven track record in API development, database optimization, and AI integration. Currently own transaction control systems processing millions of requests daily with 99.999% availability. Champion of innovative AI-driven solutions that reduce operational overhead by 90% while maintaining production excellence.

Technical Skills

Languages: Java, JavaScript, Python, TypeScript, SQL, C, C++, Golang, Rust, Haskell

Frameworks & Technologies: Spring Boot, React, Node.js, MongoDB, Kafka, Spring AI, Model Context Protocol

Tools & Platforms: Git/GitHub, Jenkins, Docker, Prometheus/Grafana, Jira/Confluence

Work Experience

Visa Inc.	Singapore	
<i>Software Engineer, Value-Added Services (Transaction Services)</i>	Jun 2023 – Present	
• Own and maintain critical Visa Transaction Controls and Visa Flexible Credentials APIs integrated with VisaNet, serving issuer applications and admin portals with sub-300ms response times to support 99.999% system availability		
• Led development of real-time operational analytics platform providing granular DB performance metrics for transaction APIs, reducing incident remediation time by 50%+ through pre-emptive anomaly detection during peak seasons		
• Executed MongoDB migration from replica sets to sharded clusters, supporting scale from 300M to 5B+ cards while maintaining zero downtime during transition		
• Pioneered AI integration across product suite: deployed production AI feature validating merchant category codes, cutting client onboarding time by 90%; developed Model Context Protocol server for internal debugging efficiency		
• Developed and maintained React-based admin portal features for Visa and issuer CSRs to perform VTC/VFC operations, improving user experience and operational efficiency		
• Triaged and resolved critical production incidents with VisaNet timeout errors, coordinating emergency change requests with SRE and DevOps teams to maintain system reliability		
• Mentored 3 new engineers as onboarding buddy, achieving <2 week time-to-first-commit through structured knowledge transfer		

Visa Inc.	Singapore	
<i>Software Engineering Intern, VAS (Issuing Solutions) Payment Digitization Platform Team</i>	May 2022 – Aug 2022	
• Developed RESTful API features using Spring Boot for payment digitization services, contributing to production codebase		

National University of Singapore	Singapore	
<i>Teaching Assistant (CS2030S, CS1010E, CS1101S)</i>	Aug 2020 – May 2022	
• Facilitated weekly tutorial sessions for 8-23 students across 4 semesters; received 11 teaching award nominations with average 4.5/5.0 instructor rating		

Education

National University of Singapore	Singapore	
<i>Bachelor of Computing in Computer Science</i>	GPA: 4.61/5.00 2019 – 2023	
Relevant Coursework: Software Engineering, Database Systems, Parallel & Concurrent Programming, Data Structures & Algorithms, Programming Language Concepts		
Academic Achievement: 11 teaching award nominations across 4 semesters as TA; conducted Java workshop for 400 students		

Additional Technical Experience

Key Technical Competencies

- Production Systems: Designed and maintained RESTful APIs handling millions of daily requests with strict SLA requirements (<300ms response time); experienced in incident management, root cause analysis, and performance optimization
- Database Architecture: Deep expertise in MongoDB operations including sharding strategies, replica set management, query optimization, and index design for high-scale applications
- AI/ML Integration: Hands-on experience productionizing AI features using Spring AI and MCP; implemented LLM-powered validation systems reducing manual workflows by 90%
- Cross-functional Leadership: Collaborated with product management, architects, DevOps, SRE, and security teams to deliver features aligning technical feasibility with business requirements