

Vignesh Krishnamurthy

Principal Engineer | Backend Platforms & Distributed Systems

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PROFILE

Principal-level backend engineer with 13 years delivering high-traffic, mission-critical platforms for Australia's largest streaming services. Combines deep Java/Spring Boot expertise and Kubernetes-native cloud engineering with hands-on experience in agentic AI, including Spring AI, LangChain4j, and Ollama integration. Proven track record leading 15+ engineer teams, making high-stakes architectural decisions, and shipping resilient systems that serve millions of users. Seeking a senior IC or tech-lead role where engineering excellence and AI-augmented delivery are both valued.

EXPERIENCE

Foxtel

October 2019 – Present

Progressed through three platform-defining projects at Foxtel over six years — Kayo Sports, Binge, and Hubbl — advancing from Senior Software Engineer to Principal Engineer.

Principal Engineer • Hubbl — Streaming Aggregation Platform

2022 – Present

Java • Spring Boot • Kubernetes • AWS • Kafka • New Relic

- Drove architecture and delivery of core backend services, billing, identity (IDP), and device lifecycle, powering a platform serving 2M+ active devices; maintained 99.9%+ availability SLA across production.
- Led and mentored 15+ engineers across 4 squads; introduced architecture decision records (ADRs) and service-ownership model that reduced cross-team escalations by an estimated 30–40% based on on-call handoff frequency.
- Designed and built the authentication platform (OAuth2, JWT, API-key) for Hubbl from the ground up; designed for horizontal scalability to handle 5,000 RPS peak and 1,500 RPS sustained load across all platform services.
- Built New Relic observability suite from scratch, covering dashboards, synthetic monitors, and alerting, integrated with Slack to deliver incident notifications within 5 minutes of detection, giving squads near-real-time awareness of production issues across all Hubbl platform services.
- Acted as primary production escalation point; led incident response for 10+ P1 events, all resolved within SLA with zero customer-facing data loss.

Technical Lead • Binge — Entertainment Streaming Platform

2021 – 2022

Java • Spring Boot • Kafka • AWS Step Functions • Netflix Conductor

- Architected Kafka-driven subscription management system handling 7M+ events/day across user and billing domains, ensuring end-to-end subscription confirmation from user action to confirmation receipt within 30 seconds at production scale.
- Designed and built an in-house Identity Provider (IDP) to separate authorisation from authentication, exchanging Auth0 tokens for entitlement-bearing tokens, reducing Auth0 cost by 30% and load on the Auth0 system by 50–60%.
- Orchestrated complex multi-step user onboarding journeys using AWS Step Functions and Netflix Conductor, achieving more than 90% successful completion rate at scale.
- Enforced engineering standards through structured code review and technical design sign-off; drove test coverage from ~30% to 70% across the service estate.

Senior Software Engineer • Kayo Sports — Australia's #1 Sports Streaming Platform

2019 – 2021

Java • Spring Boot • PostgreSQL • Kubernetes • Vue.js

- Designed and delivered product-and-offer catalogue services used by 1M+ subscribers; modelled flexible pricing structures in PostgreSQL supporting 100+ distinct offer configurations.
- Led Kubernetes migration for 20+ services from EC2, enabling auto-scaling, faster rollbacks, and improved deployment consistency, and giving the platform the elasticity to absorb live sports traffic spikes without manual capacity planning.
- Built a custom offer configuration system to address the billing platform's limitations around multi-use vouchers and complex offer conditions, enabling the product team to self-serve promotional and pricing configurations the existing system could not support.

Senior Software Engineer • Fair Consulting Group

November 2018 – October 2019

FluentCommerce — Enterprise Order Management System | Java · AWS · Oracle DB · Maven

- Led migration from legacy OMS to FluentCommerce for 4+ enterprise clients, owning the full project lifecycle and translating custom business logic into the new platform, on time and within scope.
- Integrated FluentCommerce with client ERP and fulfilment systems using Java, Maven, AWS, and Oracle DB, delivering resilient, scalable interfaces aligned with each client's workflows.

Senior Software Engineer • Cisco Systems

April 2015 – September 2018

Wireless LAN Controllers — Radio Resource Management | C · RTOS · Embedded Systems

- Developed and optimised Radio Resource Management (RRM) algorithms — channel selection, power control, load balancing — deployed on enterprise-scale wireless networks across 100+ sites globally.
- Designed staged firmware rollout mechanism for near-zero-downtime upgrades across controller fleets; eliminated 80% of upgrade-related outages.
- Applied performance engineering discipline within a real-time OS environment under severe resource constraints — directly applicable to low-latency backend optimisation.

Software Engineer • Aris Global

July 2013 – April 2015

Enterprise Life Sciences Applications | Java · Spring · Oracle · MySQL

- Delivered full-stack features across Java/Spring backend, JSF/PrimeFaces UI, and Oracle/MySQL data layers for large-scale life sciences enterprise applications.
- Designed RESTful APIs and optimised complex SQL queries, contributing to CI/CD pipelines in an Agile development environment.

PERSONAL PROJECTS

Expense Analyser • Personal Project

2025 – Present

Spring Boot 3 · React · Ollama · LangChain4j · PostgreSQL · Docker

- End-to-end AI-powered expense analysis tool: Spring Boot REST backend, React frontend, and local LLM (Ollama/Llama 3) for natural-language expense categorisation and insight generation.
- Implemented ReAct agent loop with LangChain4j for multi-step reasoning over financial data; explored RAG pipeline patterns for personalised financial advice.

HomeTable • Personal Project | github.com/vignesh-krishnamurthy/hometable

2026 – Present

Spring Boot 3 · Kubernetes · PostgreSQL · Kafka · AWS

- Hyperlocal home-food marketplace: event-driven Spring Boot microservices backend with Kafka for order events, PostgreSQL for catalogue persistence, deployed on Kubernetes.
- Designed with CQRS and outbox pattern to ensure eventual consistency across seller, order, and payment domains.

SKILLS

Languages: Java 17+, Kotlin, Python, JavaScript (Vue.js, React), C

Frameworks: Spring Boot 3.x, Spring Framework, Spring Security, Spring AI, LangChain4j, Maven

Architecture: Microservices, Event-Driven Architecture, CQRS, Outbox Pattern, REST API Design, Distributed Systems

Cloud & DevOps: AWS (EC2, S3, SQS/SNS, Step Functions, Lambda, EKS), Docker, Kubernetes, Terraform, GitHub Actions, Jenkins, CI/CD

AI & Agentic: Spring AI, LangChain4j, Ollama, RAG pipelines, ReAct agent patterns, MCP, GitHub Copilot, AWS Bedrock

Messaging & Data: Kafka, AWS SQS/SNS, PostgreSQL, DynamoDB, Redis, Oracle, MySQL

Observability: New Relic, distributed tracing, SLO/SLA design, incident response

Practices: Agile/Scrum, Architecture Decision Records, Technical Design Review, Production On-Call

EDUCATION & CERTIFICATIONS

Bachelor of Engineering — Computer Science	2013
Visvesvaraya Technological University	