

Kartikeyan Kidambi

Backend Engineer — Java · Spring Boot · AWS

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SUMMARY

Final-year Computer Science student who ships production systems rather than coursework — **ten applications deployed and publicly reachable today**, including two shipped products used by real users. Depth in **Java 21, Spring Boot and AWS**; also builds with AI in the loop — agentic development, tool-calling automation and spec-driven delivery.

TECHNICAL SKILLS

- Languages** Java 21, Python, JavaScript, Dart, SQL
- Backend & Mobile** Spring Boot, Spring Data JPA, Python FastAPI, Flutter, REST APIs, Microservices, WebSockets
- Data & Cloud** MySQL 8, SQLite, Redis · AWS (EC2, RDS, S3, IAM, CloudFormation), Docker, Render, Vercel
- Frontend & AI** React 19, Vite, Tailwind CSS, NVIDIA Vision AI, LLM APIs, Agentic Tool-Calling
- Engineering** Git, Maven, Postman · 120+ Unit Tests, System Design, GS1 Barcode Standards, Concurrency

PROJECTS

Switch — Quick-Commerce Price Comparison Engine SHIPPED PRODUCT switch.kartikidambi.space

Flutter (Android & Web) · Python FastAPI · WebView Sessions · On-Device Privacy Architecture

- Shipped a cross-platform quick-commerce comparison engine, **in active consumer use**, comparing live prices across **six platforms** (Blinkit, Zepto, Instamart, BigBasket, JioMart, Amazon) for the user's pincode.
- Engineered **parallel session extraction** across all storefronts via isolated in-app WebViews, reading live price, pack size, delivery ETA and stock concurrently.
- Built **unit-price normalisation** (per kg/litre/unit) and Jaccard token-overlap matching to unmask deceptive packaging; out-of-stock items are excluded from ranking.
- Designed a **zero-storage privacy architecture**: no accounts, no server-side retention of user locations or carts, and zero ad trackers.

EcomMart — Full-Stack E-Commerce Platform DEPLOYED ecom-mart-five.vercel.app

Java 21 · Spring Boot 3.x · Spring Security · React · MySQL on AWS RDS

- Built REST APIs on **Spring Boot 3.x / Java 21** with **Spring Security** enforcing role-based access for guests, customers and administrators.
- Developed a simulated Razorpay gateway with card validation, sandbox success/failure flows and **payment signature verification**.
- Designed an admin dashboard (sales KPIs, order statistics, low-stock alerts) with product CRUD and order lifecycle from Placed to Delivered — H2 locally, **MySQL on AWS RDS** in production.

TicketBook — Bus Reservation System DEPLOYED ticket-reservation-system-z37j.vercel.app

Java 21 · Spring Boot 3.2 · Spring Data JPA · React 19 · MySQL 8

- Implemented an interactive seat map with **real-time availability validation and conflict prevention**, eliminating double-booking under concurrent requests.
- Developed trip search with filtering (bus type, departure slot, price range) and sorting (price, rating, duration) using **Java Streams**, plus a flat/percentage coupon engine with dynamic fare calculation.
- Added authentication, role-based authorization and session management; seeded **450+ trips across 14 routes** via an upsert strategy.

NutriScan — AI Food Intelligence & Barcode Engine SHIPPED PRODUCT nutriscan.kartikidambi.space

React 19 · Node.js · NVIDIA Vision AI · GS1 / GTIN Engine · Open Food Facts · Render

- Engineered an algorithmic barcode parser validating **4 GS1 standards (GTIN-8/12/13/14)** via modulo-10 check-digits before remote lookup, instantly rejecting non-food items to eliminate redundant API latency.
- Architected a **3-tier resilient data fallback chain** (Open Food Facts verified label DB, UPCitemdb, barcode-list.com) with a **custom circuit breaker** preventing cascading timeouts and upstream IP soft-blocks.
- Deployed **zero-trust Vision AI pipelines** (NVIDIA models) for automated OCR and ingredient/allergen extraction, calibrated against ICMR-NIN nutritional baselines; backed by **120 automated test cases** covering data integrity and edge cases.

Six more live projects — THOR AI (autonomous multi-channel assistant with failover matrix), Fatty Liver Prediction (Python ensemble modelling with SHAP explainability), Connect (Spring Boot WebSockets chat), ERP (Spring Boot MVC), Secret Drop (WebRTC peer-to-peer) and Gesture Chess (MediaPipe) — all reachable from **kartikidambi.space**.

EDUCATION

B.Tech, Computer Science and Engineering Jul 2022 – May 2026

Koneru Lakshmaiah Education Foundation (KL University) — CGPA 8.67 / 10

CERTIFICATIONS

Wipro TalentNext — Java Full Stack Development (ID TNext_SE_25_J_250890589) · **Microsoft** — Azure AI Fundamentals (AI-900) · **Salesforce** — AI Specialist · **Salesforce** — AI Associate · **Aviatrix** — Multi-Cloud Networking · **Automation Anywhere** — Robotic Process Automation