

Harsh Panchal

Applied AI / Full Stack Engineer (Java • Python • ML)

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SUMMARY

- Full-stack engineer with 5+ years building enterprise and consumer platforms across Java/Spring, Node/NestJS, SQL, and modern web/mobile frontends; M.S. in Data Science.
- Delivered ML-driven product features and prototypes (recommendations, ETA/demand forecasting, anomaly detection) and integrated outputs into REST APIs and real-time workflows.
- Strong in cloud-native delivery (AWS, Docker, Kubernetes/OpenShift), event-driven systems (Kafka/RabbitMQ), and production hardening (auth, RBAC, CI/CD).

CORE SKILLS

- AI/ML: Python (Pandas/NumPy), scikit-learn; feature engineering, model evaluation; forecasting + recommendation prototypes; LLM integration (OpenAI API), prompt engineering; embeddings + vector search (FAISS/Pinecone - basics); RAG basics (LangChain)
- Learning (2026): PyTorch; Hugging Face Transformers; LLMops & evaluation (MLflow, RAGAS/promptfoo); vector DBs (pgvector/Weaviate); model serving (FastAPI); AWS SageMaker; Airflow/dbt for ML pipelines
- Backend: Java 17, Spring Boot, Spring MVC, JPA/Hibernate, NestJS, REST APIs, OAuth2/JWT, Struts (legacy)
- Data & Messaging: MySQL, Oracle, SQL Server; Kafka, RabbitMQ
- Frontend/Mobile: Angular/TypeScript, AngularJS (admin portals), JavaScript/HTML/CSS; Flutter
- Cloud/DevOps: AWS (EC2/S3/Lambda/EFS/CloudFormation), Docker, Kubernetes, OpenShift, Jenkins, SonarQube, Git/GitHub

EXPERIENCE

Mango Analytics, LLC

Full Stack Developer | May 2024 – Present

- Designed and developed Food Haven, a multi-role food delivery ecosystem (Customer, Rider, Merchant, Admin) using NestJS, Laravel, MySQL, Flutter, and AngularJS.
- Engineered REST APIs for authentication, onboarding, ordering, and payments; implemented RBAC, JWT + refresh tokens, and OTP verification.
- Implemented real-time order lifecycle, dispatch, and live tracking via WebSockets (Socket.IO, Laravel Echo) for status updates and operational monitoring.
- Built Admin/Merchant dashboards for order management, menu/catalog control, payouts/commissions, and support workflows.
- Prototyped ML features for personalization and operations (recommendations, ETA/demand forecasting, anomaly detection) in Python; ran offline evaluation and exposed outputs via internal APIs for experiments.
- Integrated payments (Stripe + local gateways) with commission computation, settlements, and earnings dashboards.
- Configured role-specific notifications via FCM and OneSignal; contributed to modular architecture, secrets management (GitHub/1Password), and schema design.

Bank of America (Contract) — Connecticut

Full Stack Developer (Contract) | May 2022 – Apr 2024

- Led migration to Java 17 to improve performance and align with modern security/compliance requirements.
- Designed and developed REST-based microservices using Spring Boot and Spring Data JPA; implemented OAuth2/JWT security patterns.

- Integrated event-driven workflows and alert/status updates using Kafka.
- Built and maintained UI components using Angular, TypeScript, and JavaScript; improved consistency across critical user flows.
- Authored SQL queries and stored procedures; collaborated across SDLC phases (requirements → design → implementation → testing).
- Strengthened quality via JUnit/Mockito test suites, Maven builds, and CI/CD pipelines (Jenkins) with Docker and OpenShift/Kubernetes deployments.

Aditech Infotech Pvt. Ltd. — India

Java Developer | Feb 2020 – Dec 2021

- Built Java web applications across Spring MVC/IOC, Hibernate ORM, and JDBC; integrated with Oracle/MySQL.
- Developed JSP-based UI and reusable components; delivered reporting and alerting workflows with SQL/stored procedures.
- Produced UML artifacts (use cases, sequence/class diagrams) and followed Agile SDLC practices; used SVN for configuration management.

FREELANCE PROJECTS

- **Thriftkart** — Built thrift e-commerce web app + admin (React, Node.js, MongoDB); implemented JWT auth, catalog CRUD, image/media handling, and secure APIs; deployed on VPS with NGINX reverse proxy, SSL, PM2, and GitHub Actions CI/CD.
- **ShreeNirmala** — Developed responsive meditation/spirituality website (React) with interactive chakra prayer experience (clickable overlay + modals), reusable UI components, and SEO-friendly content pages.
- **KrishnaRecruitment** — Built modern HR/recruitment marketing site (Next.js) with animations, service pages, and contact/lead capture flows; optimized for performance and mobile-first UX.

EDUCATION

M.S. in Data Science — Saint Peter's University, New Jersey | 2022-2024

B.E. in Information Technology — Gujarat Technological University, India | 2016-2020