

KRISHNA VARSHNEY

Software Engineer | AI Agents, Distributed Systems, Backend

Gurugram, India (Open to relocation) | +91 9411974095 | varshney.kv1@gmail.com | [GitHub](#) | [LinkedIn](#) | [LeetCode](#)

SUMMARY

Software engineer with 1+ years of production experience building fault-tolerant backend systems and shipping LLM agent systems with security guardrails. Cut a 600K-row daily pipeline from 2 hours to under 5 minutes, reduced API latency from ~5s to under 100ms, and built an autonomous LangGraph agent that diagnoses, patches, and opens verified PRs for production incidents end-to-end.

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript, TypeScript

Backend & APIs: Spring Boot, FastAPI, Node.js, Express.js, REST APIs, WebSockets, jOOQ

Databases: PostgreSQL, MySQL, MongoDB, SQLite, DuckDB, Amazon Redshift, pgvector

AI / Agent Systems: LangGraph, LangChain, RAG, Vector Embeddings, Semantic Search, Tree-sitter, SentenceTransformers, OpenAI/Groq API

Data Engineering & Messaging: Apache Kafka, Apache Flink, Event-Driven Architecture, Stream & Batch Processing

System Design: Distributed Systems, Idempotent Processing, Transactional Outbox Pattern, Retry & Dead-Letter Handling, Fault Tolerance

Cloud & DevOps: AWS (S3, EC2), Docker, Jenkins, CI/CD, GitHub Actions, Git

Frontend Development: React.js, Next.js

Testing & Quality: API Testing, Integration Testing, Automated Testing

PROFESSIONAL EXPERIENCE

SalesCode.AI - Technical Project Associate (Software Engineer)

Jul 2025 – Present

Backend developer on the Coca-Cola Argentina account (40,000+ users), recognized as SalesCode's Best Project of the Year

- Redesigned a **600K-row** daily pipeline to delta processing, cutting ingestion time from **~2 hours to under 5 minutes**.
- Built a scheduled pipeline processing ~1M records/day across 46 entities, integrating client APIs and S3, transforming via DuckDB, and publishing downstream through Kafka.
- Cut production API response times from ~5s to under 100ms via query profiling, indexing, and SQL optimization.
- Built an incremental Java job matching **7.2M daily records** against order/invoice data with bounded memory via batched queries and streamed S3 files.
- Re-architected **20+ Java transformers** into a distributed Flink pipeline with entity-level publishing and failed-record isolation for faster recovery.
- Migrated sales-compliance processing from S3 to Amazon Redshift with idempotent upserts, enabling late-arriving orders to update existing records without duplication.

Techentia - Freelance Developer

Jun 2024 – Nov 2024

- Delivered **\$10,000+** in freelance backend engagements for U.S.-based clients, building Node.js/Express APIs with MongoDB persistence, WebSocket-based real-time updates, and Web3.js/Solidity for on-chain payment and marketplace platforms.

PROJECTS

IncidentPilot: AI-Powered Production Incident Investigation & Remediation

Tech Stack: LangGraph, LangChain, FastAPI, Tree-sitter, pgvector, GitHub Actions, Docker

- Built an AI agent that analyzes production alerts, identifies root causes, generates fixes, and creates verified GitHub PRs for human review.
- Developed **knowledge-first code retrieval** using Tree-sitter, semantic embeddings, dependency graphs, and pgvector to rank relevant repository context.
- Automated **sandboxed GitHub Actions verification**, creating PRs only after generated patches pass tests.
- Implemented **HMAC webhook authentication, evidence validation, and restricted file access** to secure agent interactions.

PayFlow: Distributed Payment Processing Platform

Tech Stack: Java, Spring Boot, PostgreSQL, jOOQ, Kafka, Docker

- Built an idempotent payment API backed by a **double-entry ledger**, enforcing that every transaction nets to zero via immutable, insert-only entries instead of mutable balances.
- Implemented the **transactional outbox pattern** to publish payment events to Kafka without a dual-write race, with a consumer applying retry-with-backoff and dead-letter handling for failed messages.
- Designed an idempotent settlement engine that batches confirmed payments per merchant on a schedule, using a **database uniqueness constraint** to make concurrent or repeated runs safe no-ops.

EDUCATION

ABES Engineering College, Ghaziabad

Nov 2022 – Jun 2026

B.Tech in Computer Science, CGPA 8.71/10

DAV Fertilizer Public School

2021

Class XII, CBSE, 97.2%