

HARIHARAN A

SOFTWARE ENGINEER

📞 +91 8056329572 | ✉ hariharan9572@gmail.com | 🌐 hariharana.com | 📺 hariharan9572 | 🎧 hariharan9572

Summary

Backend Software Engineer with 2+ years of experience building and supporting scalable Java and Spring Boot services, REST APIs, SQL-backed systems, and cloud-integrated workflows in production environments. Strong in system design, microservices-oriented backend design, database optimization, performance tuning, debugging, automation, and third-party integrations. Hands-on with AWS S3, Linux, Git-based delivery, shell scripting, cron automation, and reliable backend engineering across design, implementation, deployment, monitoring, and production support.

Skills

Backend Engineering: Java, Core Java, Spring Framework, Spring Boot, RESTful API Development, Service-Oriented Backend Design, Microservices Architecture Patterns, Concurrent Processing

Architecture & Problem Solving: System Design, OOP, Design Patterns, Data Structures & Algorithms, Distributed Systems Fundamentals, Scalability, Performance Optimization, Reliability, Debugging, Troubleshooting

Databases & Data: SQL, MySQL, PostgreSQL, Schema Design, Query Optimization, Indexing, Data Migration, Backup & Restore

Cloud, DevOps & Delivery: AWS S3, Linux, Git, GitHub, Shell Scripting, Cron Automation, Production Deployment, Monitoring, Release Support

Integrations & Platform Tools: Webhooks, OAuth2, cURL, Postman, Meta Business API, Third-Party API Integration, Lead Aggregation Systems, Codex Agent, MCP Integration

Ways of Working: Cross-Functional Collaboration, Agile Development, Ownership, Documentation, Code Reviews, Code Quality

Experience

Associate Software Developer, Wehaul Logistics Private Limited

Chennai, India

2024 – Present

- Designed, built, and maintained Java / Spring Boot backend services and REST APIs for production workflows, with emphasis on maintainability, scalability, microservices-style service design, and operational reliability.
- Implemented webhook pipelines and third-party integrations for WhatsApp messaging, lead ingestion, live tracking, and telephony workflows.
- Optimized SQL queries, indexing strategy, and schema usage to improve latency and sustain backend performance under load.
- Troubleshoot production issues, handled external API failures, and strengthened delivery reliability with validation, retry handling, and operational fixes.
- Supported Linux-based deployments using Git workflows, shell scripting, cron automation, and cloud-backed storage integrations with AWS S3.

Software Development Intern, Acceleron Labs Private Limited

Bengaluru, India

Nov 2023 – Apr 2024

- Contributed to backend feature implementation, bug fixing, debugging, and release support across application modules.
- Collaborated with senior engineers on design discussions, implementation tasks, and code quality improvements in an Agile team setting.
- Assisted with production issue investigation, testing support, and deployment-related tasks to improve reliability.

- Built strong SDLC exposure across development, troubleshooting, validation, and maintenance.

Selected Projects

Vectora – High-Performance Search Engine

Tech Stack: Java, Maven, LLM Integration, Codex Agent, Model Context Protocol (MCP), Vector Search, Inverted Indexing

- Built a Java hybrid retrieval engine combining inverted indexing and vector search for low-latency, high-throughput search workloads.
- Implemented concurrent indexing and query pipelines to improve deterministic reads and backend performance.
- Integrated pluggable embedding and LLM adapters for model-agnostic semantic retrieval.
- Integrated Vectora with Codex Agent through MCP to enable agentic search workflows and tool-driven retrieval.
- Implemented MCP-based response handling to return structured search results for agent consumption and downstream reasoning.
- Improved ingestion throughput and operational efficiency across indexing workflows.

API Integration & Automation Platform

Tech Stack: Java, Spring Boot, REST APIs, Meta Business API, OAuth2, Webhooks, cURL, Postman

- Built resilient Spring Boot integrations for Meta WhatsApp, Justdial, Indiamart, Intutrack, OAuthKey, and BuzzDial APIs.
- Implemented webhook consumers for inbound events, delivery-status updates, and lead ingestion workflows.
- Added retry logic and failure handling for external API calls to improve backend reliability in notification flows.
- Implemented OAuth2 token lifecycle handling for secure third-party API access.
- Developed production integration modules for call masking and live trip tracking.

Cloud Storage, Migration & Automation Framework

Tech Stack: AWS S3, Spring Boot, DigitalOcean, Linux, Cron, Shell Scripts

- Implemented direct-to-S3 upload flows with public and private access control.
- Served assets through signed and public S3 URLs to reduce application-server bandwidth usage.
- Migrated production workloads to DigitalOcean with data integrity checks and low downtime.
- Automated cron jobs for alerts, database backups, and retention cleanup using shell scripts.
- Provisioned and maintained Linux demo and staging environments for QA and validation.

Data Migration & Database Reliability Engineering

Tech Stack: MySQL, PostgreSQL, pgloader, SQL, Schema Design, AWS S3, Shell Scripting, Linux

- Migrated production data from MySQL to PostgreSQL using pgloader with schema mapping and constraint recreation.
- Resolved incompatibilities across data types, sequences, collations, and relational constraints.
- Validated migration parity using row counts, integrity checks, and query-result comparisons.
- Automated `pg_dump` / `pg_restore` backup and restore workflows with S3 retention policies.
- Reduced database CPU pressure and query latency through indexing, schema cleanup, and data integrity improvements.

Education

The Oxford College of Engineering

Bachelor of Engineering - Computer Science

Bengaluru, India

2020 – 2024