Harshit Raj

Backend Engineer with 3 years experience building high-scale Kafka pipelines, distributed systems, microservices, and observability platforms at Amazon & AdPushup.

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EDUCATION

KIET Group of Institutions — Ghaziabad
B. Tech. in Computer Science and Information Technology (CGPA: 8.15) — *August 2019 – July 2023*

TECHNICAL SKILLS

Languages: Java, JavaScript, TypeScript, Golang, SQL **Technologies**: Reactjs, Spring Boot, Hibernate, Node.js, Kafka Streams
Databases: PostgreSQL, MongoDB, Couchbase, Redis **Message Queues**: Kafka, RabbitMQ
DevOps & Tools: CI/CD, Jenkins, Docker, Git, Terraform, Airflow, Prometheus, Grafana, Alertmanager, Log4j2
Cloud Platforms: AWS, Oracle Cloud (OCI) **Other**: Data Structures & Algorithms

WORK EXPERIENCE

Software Development Engineer I (FTC) — Amazon Transport Tech — Oct 2025 – Present
Amazon — **Java**, **Spring Boot**, **Docker**, **AWS Lambda**, **CI/CD** — *Gurugram*

- Created and maintained backend features for **order exchange**, **returns**, and **OTP/OTP delivery**, owning production issue resolution (service connectivity, queue delays, timeouts).
- Containerized a 250MB+ Lambda service into a **Docker image**, improving deployment consistency and cutting cold-start latency by **40%**.
- Reduced DB footprint **24GB → 600MB** (24×) by purging millions of stale order events with a compliant **30-day TTL**, driving major cloud storage cost savings and eliminating false-positive OWEN signals.
- CDK-fied a large Lambda service, communicated requirements with QA, and enabled **integration test execution in Gamma**, strengthening pre-prod validation for critical releases.
- Replaced unbounded "never-expire" logs with a **3-month CloudWatch retention policy** for production Lambda services using **AWS CDK**, reducing storage growth and codifying governance as IaC.
- Mentored new engineers and guided API requirements across teams to improve microservice integrations.

Software Engineer — Mar 2023 – Sep 2025
AdPushup — **Java**, **Spring Boot**, **Kafka**, **SQL**, **Couchbase**, **Jenkins**, **Terraform** — *New Delhi*

- Engineered a **Kafka-based feedback infrastructure** processing **3.2B+ daily requests** with high reliability and fault tolerance.
- Developed a **multi-threaded ingestion pipeline** for Google Ad Manager, reducing report processing lag by **90%**.
- Implemented a **Kafka Streams anomaly detection service** to identify traffic deviations in real-time.
- Built a **Prometheus + Grafana + PagerDuty** based observability stack, improving MTTR by **50%**.
- Built an **in-house Instream Video Player** in a **3-engineer core team**, integrating **Video.js and Prebid.js** for client header bidding, with builds orchestrated via **Webpack, Couchbase, and RabbitMQ**.
- Shipped **ad-delivery optimizations** improving auction efficiency at scale, contributing to a **20% average eCPM lift** across key ad units.
- Built a **geo-distributed E2E QA pipeline (Cypress + Jenkins)**, reducing manual QA effort by **80%**.

PROJECTS

AI Powered Short-Video Automation Tool | *Node.js, LangChain, FFmpeg* — June 2024 – Individual Project
LinkedIn Post for Demo

- Built a **CLI-based AI short-video automation tool** generating Instagram Reels/YouTube Shorts in ¡1 min using **Node.js, LangChain, Whisper, ElevenLabs, and parallelized FFmpeg rendering**.

OPEN SOURCE CONTRIBUTIONS

Node-Cron (13M+ downloads) — Implemented fractional-offset scheduling and refactored UTC parsing logic, and did (docs overhaul). **Charmbracelet/huh** — Added unit tests and CI integration for Spinner components in Go **Glasskube** **(Go + HTMX)** — Resolved key UX issues, label rendering bug, and no-progress flag to stabilize the v1.0 release.

ACHIEVEMENTS AND HONORS

1800+ Rated on Leetcode, **800+** Problems Solved on Leetcode (Profile Link)

Specialist (Max Rating 1418) at Codeforces (Profile Link)