

Harshit Raghuvanshi

Software Development Engineer

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Senior Software Engineer with over four years of experience at Cisco, specializing in architecting and scaling high-throughput microservices in Java and Spring Boot. Proven expertise in reducing system latency by up to 80% and designing secure, resilient backend platforms for business-critical financial applications.

Work Experience

Cisco Systems (India) Pvt. Ltd.

SDE II & Partner Security Architect November 2021 - November 2024

- Led the end-to-end development for the Rebate Engine tool as the subject matter expert, owning the complete project lifecycle.
- Served as a **founding engineer** on the NextGen Rebate Engine platform.
- Led a **security** overhaul across a 9 applications, eliminating 100% of P0/P1 vulnerabilities and achieving a 90% vulnerability reduction.
- Developed a **multi-threaded** workflow to reduce login time by 80%.
- Designed and scaled the rebate calculation service by deploying **load-sharing** servers, significantly improving system throughput.
- Co-designed the NextGen Rebate Engine architecture, defining data models, service boundaries, and API contracts.
- Built a **React** app to serve as UI to the NextGen Platform.
- Designed and implemented dynamic **Lucene** queries to create and read indexes faster and speed up rebate re-calculations by upto 60%.

SDE I August 2020 - October 2021

- Developed and maintained a core **Spring Boot** application, delivering robust **RESTful APIs** for key business functionalities.
- Architected and delivered a reusable, platform-wide audit-log framework in Java, establishing a standardized auditing solution.
- Owned the implementation of primary business logic for the application, translating complex requirements into functional code.
- Integrated **OAuth 2.0** flow, **access management**, database pool-manager, **error handling**, actuators, and **Swagger** into the application platform.
- Created and managed **CI/CD** pipelines using **Jenkins**.

SDE - Intern January 2020 - June 2020

- Developed a POC application by merging frameworks like **Struts**, **Spring** and **AngularJS**, optimizing and refactoring the legacy code.
- Built custom cache management and logging framework.

Janitri Innovations Pvt. Ltd.

Software Engineer and Image Processing Intern May 2019 - July 2019

- Built a custom image processing algorithm using **OpenCV** to clean the images and process them in batches for optimal throughput.
- Developed **Android app** using **MVVM** architecture for the end user.
- Added **multi-threading** to increase the throughput by upto 8x.

Education

Manipal Institute of Technology

B.Tech in Computer and Communication Engineering 7.84 CGPA

August 2016 - August 2020 Manipal, Karnataka, India

- Courses:** Object Oriented Programming, Data Structures, TCP/IP, OS, Database, Software Design, Parallel Programming, Data Mining

Other positions of Responsibility

IECSE and TechTatva 2016-2019

Manipal

- Vice-Chairperson for IECSE, the university's largest technical club, where I mentored committees and organized developer workshops.
- Led multiple technical events during the TechTatva college festival.

Skills

Languages: Java, Python, TypeScript, C++, Go
Frameworks & Libraries: Spring Boot, React, Angular, Node.js, OpenCV, Android Framework
Tools & Technologies: PL/SQL, Git, Gerrit, Jenkins, Spinnaker, Maven, Docker, MongoDB

Projects

Ticker Apr 2021 - Current

Custom-built platform for algo-trading.

- Built **event-driven** suite of **Spring boot** **microservices** to fetch, store, and process algorithms on real-time **stock market** data.
- Optimized for low latency and high throughput.
- Inter-service communication using **RESTful API**.
- Designed relational database schema in **MySQL** and utilized **Spring Data JPA** for efficient and secure data persistence and retrieval.
- Designed and implemented **task executors** to manage processing threads.

CarSync Jan 2025 - Feb 2025

- Developed a data aggregation service using **Spring Boot** to ingest used car data from multiple clients, and store in **MongoDB** cluster.
- Built a **React** frontend, enabling users to efficiently filter and search the dataset.
- Engineered a dynamic, auto-scaling thread pool for the ingestion pipeline, optimizing resource utilization and throughput based on data volume and API response times.

AOSP Development May 2013 - Feb 2015

An independent exploration of Android internals through building custom ROMs, modifying system components, and open-source contributions.

- Contributed to AOSP derived Open Source projects like **CyanogenMod** and **LineageOS**.
- Developed custom Android ROMs focused on enhancing user experience by adding features to framework's **SystemUI**.
- Designed a script to leverage vendor partition to tackle storage limitation on legacy devices.
- Shrank the system image footprint by building a resource optimization pipeline that utilized drawable compression and asset removal.
- Co-developed device tree for Android One.
- Actively maintained a portfolio of AOSP based projects on XDA Developers.

Achievements

ICPC Regionals

- Rank 36 in ICPC Kharagpur region, 2018
- Rank 46 in ICPC Kolkata-Kanpur region, 2018