

Aman Kumar Singh

aman.rv23@gmail.com | +91-9693554963 | LinkedIn | GitHub | LeetCode | Portfolio | GeeksForGeeks

Experience

Oracle

Associate Software Engineer

Bengaluru, India

Aug 2023 – Present

- Initiated and led a large-scale refactoring of the **Safety Benchmarking** module in the CEI NextGen application after identifying major architectural and performance issues.
- Reduced **initial page load time from 30–35s to <20s (about 40% improvement)** by optimizing API interactions, removing redundant UI/backend modules, and improving system design.
- Eliminated **2000+ lines of legacy code and 5 redundant files**, improving maintainability and reducing technical debt.
- Migrated the Safety Monitoring application from **NewMetrix** to **CEI-NextGen**, implementing the UI in **ReactJS** and backend services in **Spring Boot** with **PLSQL**-based data pipelines.
- Strengthened application security by implementing **Row-Level Security** across database tables to prevent unauthorized access to project-level data.
- Improved backend efficiency of the **Safety Monitoring** application by identifying redundant database calls and reducing executed queries from **32 to 12**.
- Optimized **12+ critical SQL queries** operating on datasets exceeding **1B records**, reducing execution time from **>3s to <1s** through query optimization and indexing.
- Designed and built an **AI-powered code review platform** integrating **OCI LLMs** to automatically analyze pull requests and generate contextual developer feedback.
- Developed a **VS Code extension** using **TypeScript**, OCI TypeScript SDK, and the **simple-git** library, enabling developers to trigger AI-assisted reviews directly within their development workflow.
- Architected the end-to-end system including LLM integration, backend services, and retrospective analytics dashboards; **two engineering teams have already adopted the platform**.

Oracle

Project Intern

Bengaluru, India

Jan 2023 – Jul 2023

- Improved system observability by building centralized **Node.js error logging middleware** integrated with **Kibana**.
- Improved API responsiveness by **15%** by resolving backend aggregation and count mismatches.
- Increased user engagement by **20%** by redesigning the CIC application for responsive behavior across devices.

Campus Innovations

Frontend Developer Intern

Remote

Apr 2022 – Jul 2022

- Improved user experience by developing reusable UI components in **ReactJS** and built backend services using **NodeJS**, **Express**, and **MongoDB** to support scalable application functionality.
- Deployed application infrastructure using **AWS EC2** and **AWS Amplify**.

Education

R.V. College of Engineering

B.Tech – Electronics and Instrumentation Engineering; GPA: 8.39

Bengaluru, India

Sep 2019 – Aug 2023

Skills

Languages: C++, JavaScript, SQL, PLSQL, Java

Frameworks: ReactJS, NextJS, NodeJS, ExpressJS, Spring Boot

Databases: PostgreSQL, MySQL, MongoDB, Oracle DB

Tools: Git, GitLab CI/CD, Docker, Postman, Cursor

Platforms: AWS EC2, AWS S3, Oracle Cloud Infrastructure (OCI)

Certifications & Achievements

- Solved **500+ Data Structures and Algorithms problems** across platforms such as LeetCode and GeeksforGeeks.
- Oracle Cloud Infrastructure **Generative AI Professional (2024)** – scored **86%**.
- Awarded **Gold Medal** in NPTEL Programming in Java.