Nimish Rao

+91 9301393723 | raonimish25@gmail.com | linkedin.com/in/nimishraoworks | github.com/Nimish2098

SUMMARY

Experience building backend applications and RESTful APIs with a focus on clean service design and database-backed systems. Worked with relational databases, authentication and authorization mechanisms, and applying validation and transactional logic in backend services.

EDUCATION

Vellore Institute of Technology	Bhopal, MP
B.Tech Computer Science Engineering with spec. in AIML - 8 CGPA	*2022 – 2026(expected)*
Sai Shree International Academy	Ratlam, MP
Class XII – 81.8%	*2020 – 2021*
Sai Shree International Academy	Ratlam, MP
Class X – 90.5%	*2018 – 2019*

PERSONAL PROJECTS

URL Shortener Service ⟳   Dec 2025 – Jan 2026

Java, Spring Boot, PostgreSQL, Redis, Docker
- Designed and implemented a backend URL shortener using **Java** and **Spring Boot** following a controller–service–repository structure.
- Developed REST APIs for URL creation, redirection, expiration handling, and deletion with proper HTTP status codes.
- Used **Redis** to cache frequently accessed short URLs and reduce repeated database reads.
- Implemented basic request limiting logic using Redis to prevent excessive API usage.
- Designed relational schemas in **PostgreSQL** with indexing and unique constraints to ensure data integrity and efficient lookups.
- Added URL access tracking and persisted analytics data asynchronously to avoid blocking request flow.
- Containerized the application using **Docker** to ensure consistent local and deployment environments.

Personal Finance Tracker ⟳ ⧉   Sept 2025 – Nov 2025

Java, Spring Boot, Spring Security, PostgreSQL, React
- Built backend REST APIs using **Spring Boot** to manage users, financial transactions, and expense categories.
- Implemented authentication and authorization using **Spring Security** with JWT-based access control.
- Designed normalized **PostgreSQL** schemas to store users, transactions, and category mappings.
- Implemented pagination and filtering for transaction history APIs to handle growing datasets.
- Developed reporting APIs to generate category-wise and time-based spending summaries.
- Ensured data consistency using transactional boundaries and input validation at the service layer.

Automated Approval System ⟳   Apr 2025 – May 2025

Spring Boot, PostgreSQL, WebSockets
- Developed a backend workflow system to manage multi-stage document approval processes.
- Implemented REST APIs to support approve, reject, and escalate actions with well-defined state transitions.
- Persisted document states and approval history in **PostgreSQL** to support audit tracking.
- Integrated **WebSocket**-based notifications to inform users of approval status changes in near real time.
- Handled transactional consistency to ensure approval actions were completed atomically.
- Designed the workflow logic to allow future extension of approval roles and stages.

TECHNICAL SKILLS

Languages: Java, Python, SQL, HTML, CSS

Frameworks & Backend: Spring Boot, Spring MVC, Spring Security, Microservices, REST APIs

Databases: PostgreSQL, MySQL

Developer Tools: Git, GitHub, Maven, Docker, Postman, CI/CD

CS Fundamentals: DSA (Java), OOP, DBMS, OS

ADDITIONAL HIGHLIGHTS

- Spearheaded a team of volunteers for **VITB MUN 24**, securing venue sponsorships and enhancing event accessibility.
- Secured **1757th rank** in **CodeClash – The Battle of Logic & Code Unstop**.
- Solved ~300 DSA problems on LeetCode, GFG, and Codeforces. ⧉