


Rushikesh Diliprao Bhomale

Backend Software Engineer

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 Tech Portfolio  LeetCode  HackerRank

PROFESSIONAL SUMMARY

Backend Software Engineer with ~2 years of experience, expertise in Python, Node.js, and cloud-native development. Skilled in designing and optimising RESTful APIs, secure authentication systems, and database-driven applications. Experienced in building production-ready backend systems on GCP with emphasis on clean code, performance, and CI/CD workflows.

WORK EXPERIENCE

Software Developer
NeuralHQ.ai

Jan 2024 – Present

- Designed and developed scalable backend systems from conception to production deployment.
- Led backend development for high-impact projects, including Hasiru Rakshaka and Tunnel & Landmine Detection systems.
- Built and maintained robust server-side applications and APIs using Node.js, Express.js, Python, FastAPI, and Flask.
- Architected and managed databases for optimal performance and scalability.
- Implemented security best practices, including JWT authentication and role-based access control (RBAC).

PROFESSIONAL PROJECTS

- AI Agent “Sean” (Fintech Customer Support)**
 - Implemented a microservices-based AI Agent automating credit card-related query resolution. The agent utilised complex SOPs and transactional data to resolve card-related queries (e.g., bill inquiries, payments, and card blocking) and escalate complex cases.
 - Built authentication and identity management microservices with PostgreSQL schema design, JWT-based REST APIs, and RBAC.
 - Reduced average query resolution time by ~60%
 - Tech Stack:** Python, FastAPI, PostgreSQL, GCP, Docker
- Tunnel & Landmine Detection Backend System**
 - Defence system for detecting underground tunnels and landmines using drone/rover-collected GPR data analysed by an ML pipeline and visualised on a real-time mission dashboard.
 - Architected and developed the FastAPI-based backend from scratch as the communication hub between frontend, ML services, and drone systems, designing API contracts and implementing real-time mission management, GPR detection data transfer and PostgreSQL integration.
 - Tech Stack:** Python, FastAPI, PostgreSQL, Docker, Linux
- Hasiru Rakshaka (Tree Monitoring System)**
 - Designed & deployed the entire backend system using Node.js for BBMP's tree plantation monitoring initiative, tracking 200K+ saplings across Bengaluru.
 - Developed scalable APIs for activity logging, health monitoring, and reporting dashboards.
 - Ensured high availability and performance with optimised PostgreSQL schema and efficient query design.
 - Tech Stack:** JavaScript, Node.js, Express.js, PostgreSQL

TECHNICAL SKILLS & TOOLS

Programming Languages: Python, JavaScript

Frameworks & Libraries: FastAPI, Flask, Node.js, Express.js, npm

Databases: SQL, PostgreSQL, MongoDB

Cloud & DevOps: Google Cloud Platform, Git, GitHub, Docker, CI/CD pipelines

Tools & Technologies: REST API design and development, JWT authentication, RBAC authorisation, Microservices architecture

SOFT SKILLS

Adaptable & Quick Learner | Effective Collaborator | Code Review & Mentorship

EDUCATION

Full Stack Web Development - Backend
Masai School

Dec 2022 – Dec 2023

Bachelor of Engineering
Bapurao Deshmukh College of Engineering

Jul 2017 – Aug 2021

CERTIFICATES

- Python
- SQL
- Problem Solving