

SOORAJ

Software Engineer

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Bengaluru, India

in [Linkedin](#)

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[Leetcode](#)

[Portfolio](#)

EXPERIENCE

Software Engineer

Carelon Global Solutions

Jul 2023 – Present

Bengaluru, India

- Optimized database queries achieving **sub-second response times on 1M+ row MySQL database serving 500+ daily users** through **B-tree indexing**, query optimization.
- Architected **full-stack data catalogue application** with RESTful API backend (FastAPI) and React frontend, handling **1000+ concurrent requests** with streaming responses and optimized rendering using **useCallback/useMemo**, achieving **35% fewer re-renders**.
- Designed and implemented **MongoDB aggregation pipelines** for cost analysis processing **10,000+ records daily**, enabling real-time analytics across multiple microservices with interactive data visualization interfaces.
- Implemented **LangChain-powered RAG pipeline** with FAISS vector database for contextual query understanding, enabling **natural language to SQL conversion** with intelligent agent-based routing across multiple data sources.
- Developed **SSO authentication system** with JWT token management and session transfer mechanism, enabling seamless authentication across multiple applications for **200+ users** with secure credential rotation.
- Engineered **intelligent email routing system** integrating Proofpoint Relay with SMTP, implementing IP-based domain selection to send the email in external / internal network.
- Built an internal **developer automation platform** using **FastAPI and Next.js** to automate AWS infrastructure provisioning and GitFlow-based CI/CD with **Docker, Terraform, Boto3, and IAM**, including blue-green deployments and log monitoring, reducing deployment cycles by **40%** and setup time to under **3 minutes**.
- Led an end-to-end **POC for Living labs**, developed an **Vulnerability compliance monitoring system** across EC2, Lambda, and S3 that reduced security vulnerabilities by **70%**, while mentoring **3 interns** on full-stack development and deployments.
- Tech Stack: Node.js, Python, FastAPI, Express, React, Next.js, TypeScript, LangChain, MySQL, MongoDB, Redis, FAISS, AWS (EC2, Lambda, S3, CloudWatch, Secrets Manager), Docker, Terraform, Boto3, Git, JWT, VPC, Subnet, Security Groups

ACHIEVEMENTS

- Solved Over **500+ Coding Problems** on Leetcode - [Profile Link](#).
- Achieved a **1676** Max LeetCode Contest Rating.
- Secured **Rank 1445** in Google Kickstart Round H 2022.
- 1750+** Contest Rating in Codechef
- Passed **Microsoft Azure AI Fundamentals (AI-900)** with **747/1000** [Certificate Link](#).
- Received **5+ Impact Points Award** for technical excellence in Livinglabs portal enhancements.

PROJECTS

ML Model Serving API



(FastAPI Production Backend)

- Python | FastAPI | TensorFlow | Docker | Auth0 | Nextjs
- Built **FastAPI backend** with async endpoints and **model versioning system**, processing **500+ requests monthly** with **80% faster response times** and sub-second latency.
- Deployed **6 model architectures** through unified REST API with **99.2% prediction accuracy** on 5,000+ test cases and **15% improved inference speed**.
- Implemented **Auth0 JWT authentication** and containerized with **Docker** for production deployment.

Emergency Response Management



(Emergency Management System)

- Node.js | Next.js | TypeScript | Redis | JWT
- Added **Redis caching with TTL** for faster incident lookup, **reducing response time by 60%**.
- Geolocation-driven **hospital routing** with proximity logic, **optimizing dispatch efficiency by 40%**.
- Real-time **ambulance tracking + DB indexing**.
- Automated dispatch via **nearest-location algorithm**.
- Admin panel with **CRUD workflows**.

TECHNICAL SKILLS

- Languages:**
 - Python, JavaScript, TypeScript, SQL, Bash, C++
- Frameworks:**
 - Node.js, Express, FastAPI, REST APIs, WebSockets, Microservices, Nextjs, Reactjs
 - JWT, Auth0, OAuth2.0
- Databases:**
 - MySQL, MongoDB, Redis, Database Indexing, Query Optimization
- Cloud & DevOps:**
 - AWS: EC2, Lambda, S3, VPC, IAM, CloudWatch, Secrets Manager, Route53
 - Docker, Terraform, CI/CD, IaC, Git, GitFlow, Boto3

EDUCATION

B.Tech. (Mechanical Engineering)
- 8.59 CGPA | Computer Science
(Minor) - 8.0 CGPA

National Institute of Technology Karnataka

Jul 2019 – May 2023