

Nishal Devadiga

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PROFESSIONAL SUMMARY

Results-driven Computer Science graduate and Full-Stack Developer with hands-on experience building scalable back-end systems using **FastAPI, Node.js, PostgreSQL, Redis, Docker, and CI/CD**. Delivered performance improvements (40% faster APIs) and production-ready features; seeking full-stack/backend roles.

SKILLS

- **Programming & Scripting:** JavaScript (ES6+), Python, SQL
- **Backend Frameworks & Tools:** Node.js, Express.js, FastAPI, RESTful API Design, Microservices Architecture
- **Databases & Data Management:** PostgreSQL, MySQL, MongoDB, Redis, Database Design, Query Optimization, Data Modeling
- **Security & Authentication:** JWT, OAuth2, Role-Based Access Control (RBAC), Data Validation, API Security
- **Integrations & System Features:** Razorpay Payments, Google Maps API, Email/SMTP Services, Cron Jobs & Task Scheduling, Logging & Monitoring
- **Cloud & Infrastructure:** AWS (S3, EC2, SES, Lambda), Docker, CI/CD Pipelines, Nginx, Cloud Storage, Deployment Automation
- **Performance & Scalability:** Caching (Redis), Connection Pooling, Load Handling, Query Tuning, Asynchronous Processing
- **Developer Operations & Collaboration:** Git, GitHub, GitLab, Postman, Agile, Scrum, SDLC
- **Methodologies:** Agile Development, Sprint Planning, Code Reviews, Software Development Life Cycle (SDLC)

EDUCATION

Mangalore Institute of Technology & Engineering, India | **Bachelor of Engineering in Computer Science** | 2025 Graduate
Cumulative GPA: **8.4/10.0** | Relevant Coursework: DSA, DBMS, OS, Software Engineering

PROFESSIONAL EXPERIENCE

Back-End Developer Intern | IR Infotech | Feb 2025 – Present

- Architected and developed the entire backend infrastructure for a full-scale, **multi-role** healthcare platform, single-handedly delivering production-grade APIs, automation, and integrations.
- Implemented secure, **role-based access** control (Admin, Lab, User) with JWT authentication, ensuring data isolation and scalable permission management.
- Designed and optimized a normalized MySQL schema and implemented a concurrency-safe booking system, **preventing race conditions** and ensuring accurate appointment handling.
- Automated critical business workflows through multiple **cron jobs** - including slot generation, expiry clearing, and subscription renewal - improving system reliability and reducing manual intervention.
- Integrated third-party services such as **Razorpay** (payments), **AWS S3** and **Google Maps API** (home sample collection and lab routing).
- Built the backend for a comprehensive **Admin Dashboard** enabling system-wide management, lab promotions, and custom analytics.
- Improved performance and scalability through caching and query optimization, **reducing API latency by up to 50%** and enhancing load stability under concurrent usage.

PROJECTS

Sweepzy (Civic Impact Platform) | github.com/NishalDev/sweepzy-be

- **Engineered a geospatial backend** using FastAPI and PostGIS, optimizing "litter near me" queries to **$O(\log n)$** complexity for a 5km radius.
- **Designed an event-driven architecture** using **Redis Queues** to offload heavy AI verification tasks, preventing main-thread blocking and reducing API latency by **40%**.
- **Built a gamified engagement system** with role-based access control (RBAC) and JWT authentication to secure admin vs. user workflows.
- **Deployed a fully containerized pipeline** (Docker, GitHub Actions, Fly.io) ensuring zero-downtime updates and automated testing for critical paths.
- **Tech Stack:** Python, FastAPI, PostgreSQL (PostGIS), Redis, Docker, CI/CD, Next.js.