

Nikhil H

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Portfolio | GitHub

Professional Summary

Full-Stack Developer specializing in backend systems and relational database design using Node.js, Express, and PostgreSQL. Experienced in building end-to-end PERN applications, with a primary focus on multi-tenant data isolation, REST API design, dynamic authorization, and query performance.

Education

Saveetha Engineering College

2024 – 2028

Bachelor of Engineering (Computer Science & Engineering)

CGPA: **9.1** / 10

Mgr Adarsh School

2022

Senior Secondary (Science)

Score: **90%**

Technical Skills

Languages: JavaScript, TypeScript, Java, SQL

Frontend: React.js, Vite, Tailwind CSS, HTML5, CSS3

Backend: Node.js, Express.js, REST APIs, System Architecture

Database: PostgreSQL, Supabase, Prisma ORM

Tools: Git, GitHub, Postman, VS Code, Vercel, Render

Architecture & Concepts: Multi-Tenant Systems, Row-Level Security (RLS), Design Patterns (Repository, Middleware), JWT Auth, RBAC, Database Design

Projects

PawnManager – Multi-Tenant Business Management Platform | Live Demo

Aug 2025 – Present

- Architected a scalable multi-tenant SaaS platform serving multiple store locations using the PERN stack (PostgreSQL, Express, React, Node.js) and Prisma ORM.
- Solved cross-tenant data leakage by implementing PostgreSQL Row-Level Security (RLS) and dynamic tenant-aware Prisma client middleware, ensuring absolute data isolation across tenants.
- Designed a request-scoped Middleware Pattern that extracts `tenant_id` claims from authenticated JWT payloads, automatically injecting tenant context into all database queries without manual filtering.
- Normalized a multi-tenant relational schema across 15+ tables, indexing compound `(tenant_id, id)` keys to ensure sub-50ms query responses during heavy data operations.
- Built 30+ type-safe REST APIs applying the Repository Pattern to decouple data access from business logic, supporting role-based authorization (RBAC) across shop owners, managers, and staff.
- Deployed backend services on Render and frontend clients on Vercel with automated continuous integration pipelines.

Record Lab Generator | Live Demo

2025

- Reduced manual documentation effort by automating laboratory record generation, transforming a repetitive workflow into a reusable software solution.

- Improved report generation speed from 15 minutes to under 5 seconds by developing a high-performance template engine for automated PDF compilation.
- Increased overall department workflow efficiency by eliminating formatting errors and generating standardized academic reports.

Universal App Opener (Open Source Contribution) | Pull Request

2025

- Improved cross-platform application launching by researching Android and iOS deep-linking mechanisms and contributing platform-specific enhancements.
- Collaborated with open-source maintainers through GitHub pull requests, issue discussions, and documentation improvements, strengthening software quality and maintainability.
- Resolved platform compatibility challenges by analyzing official documentation and implementing standards-based deep-linking solutions.

Achievements

- IBM Z Certification.
- Adobe Hackathon Participant.
- SIH Participation