Divy Pathak

Portfolio   Blog   GitHub

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Education

Vellore Institute of Technology, Bhopal   *Sep 2022 – Present*
B.Tech in Computer Science and Engineering   **CGPA: 7.72**

Class XII: **76.4%** Class X: **91.4%**

Projects

DocAI — Intelligent Document Automation Platform (GitHub / Live)
A complete document-generation and enhancement platform that allows users to create DOCX and PPTX files dynamically using Python libraries. Integrated Gemini to auto-generate document outlines, slide structures, and section-wise content with the option to refine or regenerate using custom prompts. Built a clean dashboard for uploading, editing, previewing, and downloading final documents. The workflow includes template generation, content expansion, manual override, and export. Focused on usability, modular design, and AI-assisted content creation for presentations and documents.
Tech: FastAPI, React.js, Tailwind CSS, PostgreSQL, Zustand, Docker, Python-docx, Python-pptx, Gemini API

Carido — AI-Powered Car Marketplace (GitHub / Live)
An AI-integrated car marketplace enabling users to list, search, and explore cars with AI-generated details. Implemented server-side filtering, dynamic search, user roles, and secure listing workflows using Prisma ORM with PostgreSQL. Integrated Gemini API for auto-filling car descriptions, and ImageKit for optimized image storage and delivery. Features a clean UI, performance-focused API routes, and scalable architecture deployed on Vercel + NeonDB.
Tech: Next.js 15, TypeScript, Prisma, PostgreSQL, Tailwind, Zustand, ImageKit, Docker

JSON-RPC Load Balancer (GitHub / Live)
A custom load-balancing system built for JSON-RPC microservices. Implemented multiple routing strategies including Round Robin, Weighted Round Robin, and a fallback mechanism with circuit breaker logic. The system marks a provider as unavailable after consecutive failures, periodically performs health checks, moves it into a half-open state, and restores it when stable—ensuring reliability without caching dependencies. Includes a live dashboard to monitor node status, failures, traffic distribution, and real-time system health. Designed with core distributed systems concepts: fault tolerance, graceful recovery, horizontal scalability, and provider resilience.
Tech: Node.js, TypeScript, Express, JSON-RPC, System Design Concepts

Technical Skills

- **Frontend:** Next.js, React, TypeScript, Zustand, Redux Toolkit, Tailwind, Sass, Framer Motion, GSAP, Electron

- **Backend:** Node.js, Express.js, FastAPI, SQLAlchemy, Prisma, PostgreSQL, MongoDB, Redis, JSON-RPC, REST APIs, WebSockets, Axum

- **DevOps:** Docker, CI/CD, Linux, Nginx, Vercel, Render, Netlify

- **Languages:** C++, JavaScript, TypeScript, Python, C, Rust

- **Other:** System Design Basics, API Design, n8n Automation, Linux Ricing, JLPT N5

Relevant Courses & Achievements

Hacktoberfest Super Contributor 2025
IBM DevOps Fundamentals
IBM Agile Methodologies
IBM DevOps, Agile & Design Thinking
JLPT N5 Japanese Language Certification

Interests

Linux Ricing — Open Source — Football — Piano — Fitness — Music