

Vivek Ranjan

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Education

Indian Institute Of Information Technology, Ranchi
B.Tech in Electronics and Communications Engineering

2022 – 2026
CGPA: 8.72

Experience

Wemofy

Software Developer Intern

Remote

Feb 2025 – May 2025

- Architected and deployed a scalable **Medical Tourism platform** using the **MERN stack** on **AWS EC2**, streamlining booking workflows and managing data for treatments, hospitals, hotels, and post-care.
- **Optimized backend performance**, improving **patient data handling efficiency by 40%** through schema restructuring and cloud-based deployment.
- **Automated medical report analysis** with **Gemini API**, reducing manual review time by **60%** via AI-driven insights and classification.
- **Integrated Notion and Google Keep via OAuth**, enabling secure cross-platform task synchronization. Built **GPT-powered pipelines** to auto-generate card-based workflows with reminders, reducing manual task effort by **50%** and increasing engagement by **35%**.

Personal Projects

EduSphere-AI | Deployed

Github 

Technologies: JavaScript (ES6+), Next.js, NeonDB, Drizzle ORM, Inngest, Stripe, Clerk

- Built a responsive and intuitive **frontend** with **React** and **Tailwind CSS**, ensuring **100% mobile responsiveness** and improving accessibility for diverse learners across devices.
- Designed and programmed an **AI-powered** personalized **study material generator**, incorporating **flashcards**, **quizzes**, detailed **notes**, and a dynamic Q&A system, reducing manual study preparation time by **60%**.
- Integrated **Clerk** for **multi-provider authentication**, increasing user sign-up flexibility by **30%**, and configured **Stripe** to enable **100% secure** payment processing with smooth subscription management.
- Developed event-driven workflows using **Inngest**, improving task automation efficiency and enabling reliable **real-time event processing with 99.9% uptime**, while utilizing **NeonDB** for secure data storage.

Horizon | Deployed

Github 

Technologies: Next.js 14, React 18, TypeScript, Appwrite, Plaid API, Dwolla API, Chart.js, Zod, Sentry, Node.js

- Developed a full-stack banking platform using **Next.js 14**, **React 18**, and **Tailwind CSS**, enabling users to integrate and manage multiple bank accounts with real-time synchronization across **100% of transactions**.
- Integrated **Plaid API** for secure multi-bank connectivity and **Dwolla API** for peer-to-peer transfers, reducing transfer failures by 25%.
- Designed a responsive financial dashboard with **shadcn/ui** and **Chart.js**, supporting real-time monitoring of 1000+ transactions and sub-second load times.
- Implemented enterprise-grade security and compliance features with **Appwrite authentication**, encrypted data storage, and validation using **Zod**, achieving 99.9% PCI-compliant reliability with error tracking via **Sentry**.

ConnectX | Deployed

Github 

Technologies: React, MongoDB, Socket.io, Express.js, Node.js, Zustand, JWT, Bcrypt, Multer, Cloudinary, ShadCN, Tailwind CSS

- Built responsive **real-time** messaging with **multi-user channels** using **WebSocket**, stress-tested to handle **50+ simultaneous connections** with instant delivery.
- Engineered **image upload/download** capabilities to support multimedia sharing via **Cloudinary**, improving media load times by **40%**.
- Implemented secure authentication and end-to-end encryption using **JWT** and **Bcrypt**, while leveraging **Zustand** for global state management.
- Optimized database queries with **MongoDB indexes**, reducing message fetch time by **60%**.

Technical Skills

Languages: C, C++, Python, HTML5, CSS, JavaScript, TypeScript, SQL

Libraries: Bootstrap, Tailwind CSS, ShadCN/UI, Material UI, Mongoose, Zustand, C++ STL

Web Dev Tools: Git, GitHub, Postman, Sequelize, Gemini API

Frameworks: React.js, Node.js, Express.js, Next.js

Cloud/DevOps/Databases : MongoDB, PostgreSQL, Cloudinary, Firebase, Docker, AWS EC2

Achievements

- Solved over **800+ problems** across GFG, LeetCode, and other platforms.
- **Led and mentored** a team of 3 interns in building a **Medical Tourism platform**, driving **task delegation**, **collaboration**, and **timely delivery** of project milestones.
- Qualified the internal round of Smart India Hackathon (SIH).