VARUN CHOUDHARY

Skills

Programming: JavaScript, TypeScript, Python, C++, HTML, CSS

Frontend: React (Hooks, Context API, Redux, Recoil), Next.js, Tailwind CSS, Framer Motion

Backend: Node.js, Express, REST APIs, Django, Flask, Redis, Kafka

Databases: MongoDB (Mongoose), PostgreSQL, Drizzle ORM

Tools/Cloud: Git, GitHub, Vercel, Railway, Render, AWS, DigitalOcean

Learning: DevOps, Web3

Experience

Ignicult Feb 2025 – Apr 2025

Frontend End Engineer

- Designed and implemented scalable web apps for a Web3-integrated gaming platform, enhancing user engagement.
- Built the main platform page using **Thirdweb SDK** for seamless wallet connectivity and Web3 interactions; integrated backend APIs for dynamic data fetching.
- Developed an **analytics dashboard** visualizing key metrics from backend APIs for platform performance monitoring.

Projects

${\bf Class Sync-AI-Powered~School~Management~System}$

GitHub / Live

- Built a **nxt-gen MERN platform** integrating **Google Gemini AI** and **Redis** to modernize school administration.
- Delivered AI-powered chat with PDFs and a secure, cookie-based authentication system for seamless access.
- Designed a scalable architecture with role-based dashboards for students, teachers, and parents.
- Enabled **interactive communication**, allowing students to ask doubts directly to teachers and peers within the portal.
- Demo Credentials: Admin admin@gmail.com / admin, Student demostudent@gmail.com / demostudent

AI-Powered p5.js Animation Generator

GitHub / Live

- Built a full-stack web app that converts natural language prompts into animations using AI + p5.js.
- Integrated Google Gemini (LLM) for real-time p5.js code generation with secure sandboxing and live preview.
- Architected a modular **Node.js** + **Express** backend with environment-based API key handling.
- Added a download as HTML feature for users to save and share generated animations.

Dodge Master - Multiplayer Browser Game

GitHub / Live

- Designed a multiplayer survival game with React, Node.js, and Socket.IO, supporting private rooms.
- Engineered a real-time physics engine with tick updates, collision detection, and dynamic game states.
- Developed power-ups like Shield, Freeze, and Slow, along with a responsive scoreboard and HUD.

Education

Netaji Subhas University of Technology (NSUT)

2023 - 2027

B. Tech in Electronics and Communication Engineering

Achievements

- Among the **Top 3 contributors** for GSoC 2025 at OSL Alpha One Labs.
- Solidus AI Hackathon 2025 Top 100 Submissions: built a web-based real-time lane-detection.