

# VARUN CHOUDHARY

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• </> LeetCode

## Skills

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**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, PostgreSQL, Drizzle ORM  
**Tools/Cloud:** Git, GitHub, Docker, AWS, DigitalOcean Vercel, Railway, Render  
**Learning:** DevOps, Web3

## Experience

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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

### ClassSync – 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

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### Netaji Subhas University of Technology (NSUT)

2023 - 2027

B.Tech in Electronics and Communication Engineering

## Achievements

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- 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.