# VARUN CHOUDHARY

### Skills

**Programming:** JavaScript, TypeScript, Python, C++, HTML5, CSS3

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**

### ClassSync

AI-Powered School Management System

- Built a next-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.
- Links: GitHub Live

  Demo Credentials: Admin-admin@gmail.com / admin, Student-demostudent@gmail.com / demostudent

## Animated-Videos-Generator

AI + p5.js Animated Video Generator

- Built a full-stack web app that converts natural language prompts into animations using AI + p5.js.
- Developed a secure p5.js sandbox and integrated Google Gemini (LLM) for real-time code generation.
- Architected a **Node.js** + **Express** backend with environment-based API key handling.
- Links: GitHub Live

### **Dodge Master**

Multiplayer Browser Game

- Designed a multiplayer game with React, Node.js, and Socket.IO, supporting private rooms.
- Engineered a **real-time physics engine** with tick updates, collision detection, and **power-ups** and **bot or pvp**.
- Implemented room logic with isolated game states using Socket.IO adapters.
- Links: GitHub Live

### 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.