Pranjal Upadhyay

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LinkedIn | GitHub | LeetCode

EDUCATION

Bachelor of Technology (CSE Core) CGPA: 8.66
Vellore Institute of Technology, Chennai 2022–2026

Class 12th – CBSE: 92.6% 2022
DAV BSEB, Patna

Class 10th – CBSE: 91.6% 2020
Radiant International School, Patna

SKILLS

Programming Languages: Java, C++, Python, JavaScript, TypeScript, SQL, C
Backend & Frontend: Spring Boot, Spring Security, Node.js, Express.js, React, Next.js, Angular
Databases & Tools: PostgreSQL, MongoDB, Supabase, WatermelonDB, Kafka, JDBC, REST APIs, JWT, Docker, AWS (EC2, S3), Git/GitHub, Jira
Problem Solving: 358+ LeetCode problems solved, focusing on Data Structures and Algorithms

EXPERIENCE

Senior Software Engineer July 2026 – Present
HCLTech USAA Account, PNC Team

- Contribute to enterprise insurance application workflows, supporting backend processes, data transformation and document generation.
- Work on transforming incoming business payloads into application data models, validating generated documents against defined templates and supporting integration workflows.
- Support code changes and feature enhancements in an Agile, Jira-driven environment; completed hands-on training in Java, Spring Boot, SQL, JDBC, REST APIs and Spring Security.

App & Dashboard Development Intern February 2026 – July 2026
TechnoGeo Soft Solution Pvt. Ltd. Bihar Live Project

- Independently conceptualized and developed an end-to-end fisheries management platform comprising an offline-first mobile application, backend services and a web dashboard.
- Built farmer, pond monitoring, survey, subsidy, marketplace and analytics modules using **React Native, Next.js, Node.js and PostgreSQL**.
- Implemented REST APIs, authentication, role-based access and offline data synchronization; the platform attracted interest from government stakeholders and the **Gates Foundation**.

Software Engineer Intern 19 May 2025 – 04 July 2025
National Informatics Centre (NIC) Patna, India

- Developed a bilingual lightning-alert monitoring platform using **Angular, Node.js, MongoDB and Leaflet**.
- Implemented secure administrative workflows and district/block-level alert monitoring for the platform.

PROJECTS

NomadAI – AI-Powered Full-Stack Travel Planner *Live Demo* *GitHub*
Technologies: Next.js, TypeScript, Supabase, PostgreSQL, Groq, Google Places, Amadeus

- Architected and developed an AI-powered travel planner using **Llama 3.3 70B**, integrating Google Places and Amadeus APIs to generate personalized multi-city itineraries for **20+ users**.
- Developed backend API routes and real-time collaborative trip workflows with presence tracking, role-based access, secure invitations and PostgreSQL Row-Level Security.

Clubify – Full-Stack Club Management System *Live Demo* *GitHub*
Technologies: Next.js, Node.js, MongoDB, JWT, Vercel

- Developed a full-stack club management platform with **JWT authentication and role-based access** for Members, Leads and Board members.
- Implemented task, event, sales, messaging and analytics workflows with a responsive user interface.

PATENTS & ACHIEVEMENTS

Co-Inventor – Published Indian Patent Application *App. No: 202641085187*
"System and Method for Sign Language Recognition and Communication"

- Developed a MediaPipe-based sign language recognition system using **149-dimensional biomechanical features and Multi-Branch TCN**, achieving **97.42% software accuracy**, **58 ms CPU inference latency** and **93.52% accuracy on Raspberry Pi 4**, evaluated across 1,600+ videos and 40 gestures.