

PRAHARSH AGARWAL

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Location: Chennai, India

Education

Vellore Institute of Technology, Chennai, Tamil Nadu

2024 – 2028

B.Tech – Computer Science and Engineering

CGPA: 9.18/10

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Networks, Database Management Systems, Object-Oriented Programming

Skills

Languages: C++, Java, Python, JavaScript, SQL, C, TypeScript, Kotlin

Frameworks/Technologies: NextJS, AWS, NodeJS, ExpressJS, NestJS, Flask, REST APIs

Databases: PostgreSQL, Oracle SQL, Redis

Tools: Git, GitHub, Docker, Linux

Concepts: Machine Learning, Android Development

Projects

APXDesk – Full-Stack ERP for Fertilizer Distribution | GitHub

July 2026

- Built a full-stack enterprise ERP managing inventory, order processing, warehouse operations, and finance with an end-to-end workflow from order placement to dispatch and ledger updates.
- Supported three role-based users (Admin, Warehouse Manager, and Sales Executive) using RBAC and JWT authentication with rotating refresh tokens.
- Engineered complex business logic including FEFO-based inventory allocation, soft-lock stock reservations, an append-only financial ledger, real-time notifications, audit logging, and credit limit enforcement.
- Utilized NextJS 14 (App Router), TypeScript, NodeJS, ExpressJS, PostgreSQL, Redis, Socket.IO, TanStack Query.

SecureBank – Full-Stack Banking Platform | GitHub

March 2026

- Developed a comprehensive banking platform featuring a Python (Flask) backend, a responsive web interface, and a Java Native Android app connected via secure REST APIs.
- Designed a BCNF-compliant PostgreSQL database, implementing ACID-compliant fund transfers using stored procedures with strict row-level locking.
- Optimized data retrieval and reporting using B+ tree indexing, PL/PostgreSQL cursors for efficient pagination, materialized views, and triggers for automated compliance audit logs.

TravelApp – Flight Booking Website | GitHub

February 2026

- Built a full-stack travel booking platform tailored for students using NextJS, NestJS, and PostgreSQL.
- Engineered a scalable REST API supporting complex search and multi-modal booking workflows.
- Integrated Razorpay for secure payment processing, checkout, and automated refunds.

ArthIQ – Smart Personal Finance | GitHub

January 2026

- Developed a responsive single-page application for personal finance tracking using Vanilla JavaScript.
- Developed a custom client-side router with lazy-loaded modules for seamless navigation across 7 views.
- Built an interactive analytics dashboard for multi-month expense and budget visualization.
- Implemented client-side state management with the Web Storage API to persist and manage financial data.

Positions of Responsibility

Fraternity of Young Innovators (FYI), Chennai

April 2025 – Present

Curation Lead | Core Committee

April 2026 – Present

- Curate to align event calendars with the club's mission, the transition from raw ideas to actionable event blueprints.
- Organize interactive events focused on innovation, problem-solving, and entrepreneurship, strengthening the campus community.

Program Representative (PR), B.Tech CSE

August 2026 – Present

- Represent the student cohort by serving as the primary liaison between students, faculty, and the administration for academic and program-related communication.
- Coordinate the dissemination of academic updates, collect student feedback, and facilitate timely resolution of concerns.

Languages & Interests

Languages: English (Fluent/Professional), French (Elementary), Hindi (Native)

Interests: Cross-cultural travel and international exploration, open-source software, and building systems.