

DHRUVIL THUMMAR

Software Engineer | Full Stack & Backend Systems

Ahmedabad, India

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Professional Profile

Computer Engineering student and Full Stack Developer focused on building efficient, scalable backend systems. Strong foundation in **Data Structures and Algorithms (Java)** with a proven ability to design and optimize complex database architectures, achieving **sub-50ms query response times**. Experienced in developing real-time applications using **Web-Sockets** and building secure, role-based systems across the **Flask and React** stacks. A proactive problem-solver dedicated to writing clean, maintainable code and applying modern engineering principles to solve large-scale technical challenges.

Technical Skills

- **Core CS:** Data Structures & Algorithms (Java), OOP, DBMS, Operating Systems
- **Languages:** Java, Python, JavaScript, TypeScript, SQL (PostgreSQL, MySQL)
- **Web & UI:** HTML5, CSS3, Bootstrap 5, React.js, Tailwind CSS, Vite
- **Data & AI:** NumPy, Pandas, Matplotlib, Streamlit, Generative AI Foundations
- **Backend & Tools:** Node.js, Flask, REST APIs, WebSockets, Supabase, Git, GitHub

Education

L J University, Ahmedabad 2024 – 2028
Bachelor of Technology in Computer Eng.
Coursework: DSA, OOP, DBMS, OS, CN
Focus: Python, NumPy, Matplotlib, Web Eng.

Certifications

- IBM Intro to HTML, CSS, & JS
- LearnQuest Intro to Java
- IBM Python for Data Science & AI
- University of Pennsylvania Data Structures in Java

Projects

Attendify System | Flask, MySQL, RBAC

Source Code

- Designed role-based authentication (Admin/Faculty/Student) with secure session handling.
- Built automated PDF attendance reports and analytics dashboard.
- Structured relational schema supporting multi-college multi-user architecture.

BUS-IQ Dashboard | Flask, SQLite, WebSockets, JS

Source Code

- Implemented real-time bus tracking using WebSockets for live route updates.
- Designed dynamic route optimization logic reducing simulated delays.
- Built responsive dashboard with live map integration and status monitoring.

Script Converter Studio | React, TypeScript, Vite

Demo Source

- Developed JSON / TOON conversion engine with client-side parsing logic.
- Integrated Monaco Editor for real-time code editing and syntax highlighting.
- Deployed static production build.

Tourism Management System | Java, JDBC, MySQL

Source Code

- Engineered booking workflow with role-based access (Admin/Customer).
- Optimized SQL queries and indexing achieving sub-50ms query response.
- Applied OOP principles (interfaces, inheritance, exception handling).

What's in My Fridge? | JavaScript, Local Storage

Demo Source

- Developed ingredient-based recipe matching with cuisine filters.
- Implemented dynamic shopping list generation with state persistence.

Airline Reservation System | Java, File I/O

Source Code

- Built console-based booking engine with AdminCustomer modules.
- Applied polymorphism, file handling, and structured exception management.

Achievements

- **Technical Research:** Advanced through **NVIDIA & Google Cloud** learning paths, focusing on **Generative AI** and high-performance computing.
- **Software Stewardship:** Managing **8+ open-source projects** on GitHub.