SITRA VISHNU BHARGAV

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Education

IIIT Jabalpur   **Nov 2022 – Aug 2026**
B.Tech - Computer Science and Engineering   *CPI - 7.7*

Technical Skills

Frontend: ReactJS, JavaScript, Redux Toolkit, HTML, CSS
Backend: Django, NodeJS, ExpressJS
Languages: Python, Java, C++
Databases: MongoDB, MySQL, PostgreSQL
Tools & Platforms: Git, GitHub, Docker, Postman, Supabase, Apache Kafka
Relevant Coursework: Data Structures, Operating Systems, DBMS, Computer Networks, Software Engineering, Data Engineering, AI, OOP

Patents and Publications

DiabEase: Smart Insulin Pen for Dosage Tracking & Site Rotation   **Published**
Application No: 202521084231

- Published under the **Indian Patent Office**, demonstrating applied research and productization in healthcare IoT.
- Designed a compact, portable device with an OLED display and onboard memory to track insulin dosage times, injection locations, and schedule future doses efficiently.

Projects

InventX | *MongoDB, ExpressJS, ReactJS, NodeJS*   **Live Demo — GitHub**

- Developed a MERN-stack **Inventory Management System** with JWT + HttpOnly cookie-based authentication and role-based access control, supporting scalable product management with pagination and real-time stock updates..
- Designed a responsive dashboard using **ReactJS (Hooks, Redux Toolkit)** and **Zod**-based form validation, improving form accuracy and user experience across devices.
- Integrated **Cloudinary API** for secure product image uploads and **Nodemailer** for password reset and contact workflows, increasing operational reliability.
- Integrated inventory analytics: stock valuation, out-of-stock alerts, and category insights — enabling data-driven procurement and reducing delays.

StudyBuddy | *Django, Supabase, JavaScript, PostgreSQL*   **Live Demo — GitHub**

- Developed a collaborative study platform using **Django and Supabase**, enabling users to join topic-based virtual study rooms with live chat and participant presence tracking.
- Implemented real-time messaging using **Supabase Realtime SDK** on the frontend, providing instant updates and an interactive user experience.
- Built JSON-based APIs for messaging and participant data with efficient database queries to ensure fast data access.
- Implemented secure email authentication with a **custom Django user model**, **CSRF protection**, and login-required decorators for access control.

Achievements

- Solved 600+ algorithmic problems on LeetCode, GeeksforGeeks, and CodeChef
- Mentored 25+ peers in coding bootcamps, significantly improving their DSA skills.

Leadership & Extracurriculars

Student Senate Member   **Feb. 2025 – Present**
Student Governance   *Jabalpur, India*

- Represented 500+ students, advocating for academic reforms and improved feedback mechanisms.
- Coordinated cross-faculty events and meetings, increasing participation .

Shutter-Box   **Nov. 2022 – Present**
Photography Club   *Jabalpur, India*

- Directed a short film featured in regional festivals, boosting club visibility .
- Mentored 15+ peers in cinematography, enhancing event documentation quality.