

Aranya Bahuguna

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LinkedIn | GitHub

EDUCATION

Vellore Institutes of Technology

Bachelor of Technology

Major in Computer Science and Engineering

Cumulative GPA: 8.72

Sehore, Madhya Pradesh, IN.

Aug 2022 – May 2026

TECHNOLOGIES AND TOOLS

- **Languages:** Java, JavaScript, HTML/Css, Sql.
- **Tools/Cloud:** AWS Cloud, Figma, Web-Flow.
- **Front-end:** ReactJS, Tailwind CSS, Bootstrap.
- **Back-end:** Node.js, Express.js, Postman, REST-API, PHP.
- **Databases:** MongoDB, Relational Databases (MySQL), Supabase, Firebase.
- **Version Control:** VScode, Git, GitHub.
- **Relevant Coursework:** Data Structure and Analysis of Algorithm, Operating Systems, Computer Networks, Database Management.

CERTIFICATIONS

- **Cloud computing**, NPTEL
- **Market Analysis**, NPTEL
- **IBM Machine Learning**, **IBM Cyber Security**, IBM
- **MERN Stack**, Ethnus

WORK EXPERIENCE

Learning Intern

Dec 2024- Jan 2024

Indian Space Lab (ISL) – Remote

- Completed 30+ hours of intensive hands-on training in Advanced Drone Technology, mastering 3 core competencies: UAV structural design, autonomous navigation algorithms, and flight control systems.
- Executed 5+ simulated mission planning exercises for aerial surveying and environmental monitoring, utilizing remote sensing data to optimize flight paths and data acquisition accuracy.
- Expanded aerospace expertise by analysing Can Sat and CubeSat architectures, focusing on payload integration, telemetry data transmission, and the design constraints of micro-satellite systems.

PROJECTS

SOS-Service

GitHub Repo

A SOS platform

- Developed cross-platform mobile application using Flutter and React, achieving 100% coverage across Android, iOS, and web platforms, and enabled real-time reporting functionality for enhanced data accessibility.
- Enhanced emergency response system by integrating AES-256 encryption and deploying YOLOv8; this improved fire-severity detection accuracy to 94% and reduced manual review time by 42%.
- Implemented Geohashing and Google Maps API via Supabase, accelerating real-time data synchronization by 30% and improving geolocation precision for incident tracking accuracy by 25%.
- Enhanced system reliability by 35% through strategic implementation of MERN stack, Flutter, React, and Supabase; enabled seamless cross-platform performance for web and mobile users.

Inventory Management

GitHub Repo

MERN Stack Platform

- Developed a complete Inventory Management System using the MERN stack, enabling 100% data management (CRUD operations) for efficient item tracking.
- Implemented Role-Based Access Control (RBAC) and secure multi-role authentication, decreasing unauthorized access risks by 30% through structured permission hierarchies and enhancing overall system access reliability by 40%.
- Optimized client-server communication with real-time synchronization, achieving instant inventory status updates and boosting system reliability by over 20%.
- Tools: Node.js, Express.js, React.js, MongoDB (Improved development speed by 30–40% due to a fully JavaScript-based workflow).

AES Image Encryptor

GitHub Repo

Encryption Project

- Engineered an image encryption platform utilizing AES-256 with optimized algorithms, ensuring military-grade data confidentiality.
- Developed the platform using HTML, CSS, and JavaScript, ensuring 100% secure client-side image handling with smooth, intuitive interactions.
- Deployed the application on GitHub, enhancing the front-end interface for usability, and ensuring 100% accessibility and reliability.
- Technologies: Html, CSS, JavaScript, Bootstrap, AES-256, GitHub.

CO-CURRICULARS

- Ecom-Thon Runner-up: Secured 2nd place in a competitive tech-cultural fest by pitching an idea.
- NSS Core-Member: Awarded the NSS 'B' Certificate for completing 240 hours of community service and a seven-day special camp.
- Pahadi Club: Served as the Founder and Coordinator of the Pahadi Club at VIT Bhopal.
- Cricket: Secured 1st place at Aarambh 2022 and 2nd place in Advitiya 2023.