

Arnav Singh

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Linkedin

Github

EDUCATION

Lakshmi Narain College of Technology

B.Tech, Computer Science and Engineering

Bhopal, MP

Sept. 2023 – Present

DAV Public School

12th in PCM

Arrah, Bihar

Aug 2020 – July 2022

EXPERIENCE

Software Developer Intern

Parabit Technology Private Ltd.

Feb 2025 – Sept 2025

Bhopal, MP

- Developed **OCR-based Java application** using Tesseract for automated text extraction from PDFs and images.
- Integrated Java backend with **Node.js** for scalable inter-service communication.
- Implemented barcode/QR scanning via **ZXing**, improving **data automation** and document handling.
- Optimized **MySQL** queries to enhance **retrieval speed** and **indexing efficiency**

PROJECTS

INSS – Intelligent Navigation Sentinel System Github

Feb 2025 – Present

- Built real-time vehicle monitoring and crowd management system using **MERN**, **JavaFX** and Swing
- Implemented **OCR** and **barcode** scanning for automated recognition and analytics.
- Designed **alert** system for crowd detection and integrated **JavaFX** dashboard showing **live video feed**, **density graphs**, and system logs in real time
- Logged and **visualized traffic density** data using **MySQL** for audit and reporting
- Implemented **real-time person detection** using Haar Cascades and optimized algorithms for high-speed frame processing

Life Line- Revolutionizing Blood Management Github

Oct 2025 – Present

- Created **web-based system** connecting donors, hospitals, and recipients for blood donation management
- Built a **smart scheduling** module to automatically calculate donors' **next eligible** donation dates and send reminders via **email/SMS/WhatsApp**.
- Integrated **predictive analytics** for hospitals to **forecast** blood demand, identify scarcity trends, and plan donation drives proactively.
- Developed a **live inventory heatmap** using dynamic data visualization to display **blood stock levels** across hospitals.
- Developed **RESTful Public APIs** enabling hospitals, ambulances, and NGOs to **sync inventories** and automate blood request operations.
- Created emergency alert modules that identify and **notify nearby** eligible donors using **geolocation** and priority-based **clustering**.

TECHNICAL SKILLS

Languages: C, C++, Java, JavaScript, SQL, GO

Frontend Development : HTML, CSS, Tailwind CSS, React.js

Backend & Frameworks:: Node.js, Express.js, JSP, JDBC

Databases: MySQL, MongoDB

Web Development : RESTful APIs, Full-Stack Development (MERN), Database Integration

Tools & Platforms: Git, Github, Docker, Postman