

Arnav Singh

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Professional Summary

Results-driven software developer with strong analytical and problem-solving skills. Experienced in building full-stack applications using Java, C++, and MERN technologies. Passionate about scalable design, clean code, and developing impactful, real-world software solutions. Adept at working with cross-functional teams to deliver projects efficiently and effectively.

Technical Skills

- Programming Languages: C, C++, Java, JavaScript, SQL
- Frontend: HTML, CSS, Tailwind CSS, React
- Backend & Frameworks: JSP, JDBC
- Java Development: Core Java, JavaFX
- Libraries & APIs: Tesseract (OCR), ZXing (QR/Barcode Processing)
- Tools & Platforms: Git, GitHub, Docker

Experience

Software Developer Intern — Parabit Technology Pvt. Ltd., Bhopal, India (Feb 2025 – Jul 2025)

- Developed OCR-based Java application using Tesseract for text extraction from PDFs and images.
- Integrated Java backend with Node.js services for seamless OCR communication and scalability.
- Implemented barcode/QR scanning using ZXing, improving document automation and data retrieval.
- Utilized MySQL for persistent storage and optimized data retrieval for search efficiency.

Projects

INSS – Intelligent Network Sentinel System

- Real-time vehicle monitoring, registration, and toll management system using MERN + JavaFX + Swing.
- Integrated OCR and barcode scanning for automation and data analytics visualization.
- Crowd Detection: Implemented real-time person detection using Haar Cascades and optimized algorithms for high-speed frame processing.
- Instant Alert System: Designed a visual/audio alert system that activates when crowd levels exceed limits, with optional email/SMS notifications.
- Java GUI Dashboard: Built an intuitive Swing/JavaFX dashboard showing live video feed, density graphs, and system logs in real time.
- Database Logging: Used MySQL for storing timestamps, density records, and snapshots for later analytics and auditing.

Web-Based Vehicle Registration Portal

- MERN stack portal for online vehicle registration with BLOB image storage and ReactJS frontend.
- Built responsive UI and secure data handling using Node.js and MySQL integration.

Education

- B.Tech in Computer Science and Engineering — Lakshmi Narain College Of Technology, Bhopal (Expected Jul 2027) — CGPA: 8.43
- Intermediate — DAV Public School, Ara (Jul 2022) — Grade: 85%