

BAIBHAV KUMAR SINGH

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Education

Vellore Institute of Technology <i>B.Tech in Computer Science and Engineering; CGPA: 8.24/10</i>	Bhopal, India Jun 2026
Guru Nanak Higher Secondary School <i>12th Standard; 72.8%</i>	Ranchi, Jharkhand Apr 2022
Guru Nanak Higher Secondary School <i>10th Standard; 92.8%</i>	Ranchi, Jharkhand Apr 2020

Technical Skills

Languages: C++, SQL, HTML/CSS, JavaScript

Frameworks: React.js

Tools: Git, Windows

Areas of Knowledge: Databases, Networking, Operating Systems, Object-Oriented Programming, AWS

Certifications: Full Stack Developer MERN (SMARTBRIDGE), MongoDB, DSA (FACE Prep), MATLAB Onramp (MathWorks), Computer Networking (Coursera), Cloud Computing (NPTEL)

Projects

Early-Stage Polyp Detection (React, Python, OpenCV, TensorFlow)	Oct 2024
<ul style="list-style-type: none">Architected AI detection system for colorectal polyps using hybrid EfficientNet-B4 CNN architecture with attention mechanisms, achieving 92% accuracy on Kvasir-SEG dataset and reducing false negatives by 22% versus clinical baselinesEngineered data pipelines processing 10,000+ annotated medical images using Pandas and NumPyOptimized TensorFlow model deployment using TensorRT quantization and ONNX runtime, accelerating inference latency by 20% (from 58ms to 46ms per image) while maintaining 99% precision for real-time clinical diagnostics on NVIDIA Jetson edge devices	
Book Store (MERN Stack, Stripe API, Tailwind CSS)	Mar 2025
<ul style="list-style-type: none">Spearheaded full-stack e-commerce platform supporting 500+ daily users with JWT authentication, slashing unauthorized access by 75% via RBAC implementationDeployed admin dashboard managing 2,500+ inventory items; integrated Stripe processing \$15K+ monthly transactions with 1% failure rateDesigned responsive UI supporting 15+ book genres and 3 media types, boosting mobile conversion by 32% through Tailwind optimizations	
Share-Bite (React, Node.js, SQL)	Mar 2025
<ul style="list-style-type: none">Created food donation platform connecting 150+ donors with 80+ organizations, diverting 2.5 tons monthly from landfills via real-time matching (15 min avg)Optimized SQL databases for distributed systems, reducing query latency by 30% through strategic indexing of high-frequency operations, query plan analysis, and connection pooling implementationIntegrated blockchain storage solutions leveraging SHA-256 cryptographic hashing and smart contracts, boosting data integrity by 50% with immutable, timestamped audit trails for secure transaction verification	

Leadership & Extracurricular

Team Member, FinTech Club & E-Cell	Sep 2023 - May 2024
<ul style="list-style-type: none">Authored 5+ technical/non-technical content pieces reaching 500+ students across 2 club eventsOrchestrated inter-college share market competition with 10K prize pool, attracting 150+ participants from 5+ colleges	
Share Market Mentor	Aug 2022 - Present
<ul style="list-style-type: none">Coached 5 beginners in market fundamentals, enabling 100% to develop personalized investment strategies within 4 weeksLed learning cohort (5 members) achieving 90%+ completion rate and 80%+ practical application score	

Interests & Languages

Languages: English (Fluent), Hindi (Native)

Interests: Reading, Singing, Sketching, Share Market Analysis, Chess