

BAIBHAV KUMAR SINGH

+91 7209210027 | kumarbaibhav123@gmail.com | LinkedIn

Education

Vellore Institute of Technology <i>B.Tech in Computer Science and Engineering; CGPA: 8.15/10</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++, Python, 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** (Python, OpenCV, TensorFlow) Oct 2024
- 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 baselines
 - Engineered data pipelines processing 10,000+ annotated medical images using Pandas and NumPy
 - Optimized 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
- Spearheaded full-stack e-commerce platform supporting 500+ daily users with JWT authentication, slashing unauthorized access by 75% via RBAC implementation
 - Deployed admin dashboard managing 2,500+ inventory items; integrated Stripe processing \$15K+ monthly transactions with 1% failure rate
 - Designed 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
- 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 implementation
 - Integrated 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
- Authored 5+ technical/non-technical content pieces reaching 500+ students across 2 club events
 - Orchestrated inter-college share market competition with 10K prize pool, attracting 150+ participants from 5+ colleges
- Share Market Mentor** Aug 2022 - Present
- Coached 5 beginners in market fundamentals, enabling 100% to develop personalized investment strategies within 4 weeks
 - Led 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