Vijaypal Singh Rathore

Location: Dharwad, Karnataka
E-mail: vijaypalsinghrathore8959179600@gmail.com ✳ *Phone:* 8959179600
LinkedIn: in LinkedIn ✳ *GitHub:* ○ GitHub ✳ *LeetCode:* LeetCode

Objective

Enthusiastic third-year B.Tech student in Data Science and Artificial Intelligence at IIIT Dharwad, seeking software development opportunities to leverage expertise in full-stack development, mobile applications, and machine learning. Experienced in building end-to-end solutions from web and mobile interfaces to ML-powered features, with active problem-solving practice on competitive platforms.

Education

Indian Institute of Information Technology, Dharwad

Bachelor of Technology in Data Science and Artificial Intelligence   *Expected Graduation: 2027*
Current CGPA: 8.2
Minor: Cyber Security

Technical Skills

Programming Languages	C, C++, JavaScript, TypeScript, Python
Frontend Development	HTML5, CSS3, React, Next.js, Redux, Tailwind CSS, shadcn/ui
Backend Development	Node.js, Express.js, FastAPI, MongoDB, PostgreSQL, Prisma ORM, Redis, RESTful APIs, Socket.io, WebSocket
Mobile Development	React Native CLI, Expo, NativeWind
DevOps & Cloud	Docker, Git, GitHub, Vercel, Netlify, Firebase, Appwrite, Cloudinary, MongoDB Atlas
AI/ML Tools	Google Gemini API, Sarvam AI, Manim, MoviePy, TensorFlow (basics)
Authentication & Security	JWT (custom implementation), OAuth, NextAuth.js, Clerk, Resend, Nodemailer, OTP Verification
Cybersecurity Tools	Wireshark, Nmap, Nikto, FTK Imager, Autopsy
Core Concepts & Problem Solving	Data Structures & Algorithms, System Design, Microservices, API Design, 5-star C rating on HackerRank, Active on LeetCode
Certifications	HackerRank (CSS, JavaScript), Lifology Global Fellow, C-DAC Cybersecurity Certificate

Achievements

YUKTI — The Chip Design Challenge 2025

1st Place — Organized by GND_0 (VLSI Club)   *2025*
Designed and implemented complete ASIC flow from RTL to GDSII layout using Verilog
Performed logic synthesis, floorplanning, placement, and routing with timing optimization
Generated clean DRC/LVS compliant layouts demonstrating efficient area and power usage

Vidyut Vega Hackathon

3rd Place — Real-Time Mask Detection Challenge   *2025*
Developed optimized deep learning model for real-time face mask detection
Achieved efficient inference on resource-constrained hardware (Raspberry Pi/FPGA)
Balanced model accuracy with size, speed, and power consumption constraints

Projects

KrishiSakhi (AgriDost) [⬈ Live] [⭗]   *2025 - Ongoing*
Cross-Platform Agricultural Ecosystem   Next.js, React Native/Expo, Node.js, MongoDBAtlas,Cloudinary,
Socket.io, Cloudinary

- Built cross-platform solution with responsive web (Next.js) and mobile app (React Native/Expo) for farmers
- Implemented JWT auth with email verification, personalized profiles, and real-time farmer-to-farmer chat (Socket.io/WebSocket)
- Created blog platform with real-time comments, crop knowledge base with AI recommendations, and live weather alerts
- Developed e-commerce marketplace with Razorpay payments,and government schemes eligibility checker
- Built AI chatbot (Gemini API) for farming queries; Cloudinary CDN for optimized images; premium UI/UX with dark mode

AI-Lecture Generator [⭗]   *2025*
AI-Powered Educational Video System   FastAPI, React 19, Gemini AI, Sarvam AI, Manim,Unsplash

- Built AI system generating educational videos with dynamic slides, Manim animations, and voice narration
- Integrated Sarvam AI (bulbul:v2) for multi-language Indian TTS (Hindi, Kannada, Telugu, Tamil, English)
- Implemented Gemini 2.0 content pipeline with per-slide audio generation and automatic timestamp synchronization
- Built video composition engine (MoviePy, Pillow) with Unsplash image integration

DocuAI: Smart Medical Assistant [⭗]   *2025*
Team Project - Mobile App   React Native, TypeScript, Flask, Whisper AI, Gemini API, OCR

- Built app that records live doctor-patient conversations or accepts audio/video uploads for medical analysis
- Integrated Whisper AI for speech-to-text transcription; OCR for extracting text from medical reports & test results
- Used Gemini AI to analyze transcriptions for diagnosis, symptom identification, and recommended tests
- Developed AI chatbot for medical queries; implemented secure JWT auth with bcrypt password hashing

Experience

Virtual Cybersecurity Internship   *2025*
C-DAC (Centre for Development of Advanced Computing)   Cybersecurity & Digital Forensics

- Completed comprehensive training in network protocols, TCP packet analysis, and security fundamentals
- Gained hands-on experience with Wireshark, Nmap, and Nikto for vulnerability assessment
- Conducted digital forensics investigation using FTK Imager and Autopsy for evidence recovery
- Performed web application security scanning and penetration testing methodologies

Quality Assurance Testing Intern   *2025*
Galaxy.ai   Software Testing & Bug Detection

- Conducted comprehensive testing of web and mobile applications across multiple platforms
- Documented and reported software defects with detailed reproduction steps and error analysis
- Performed functional, UI/UX, and compatibility testing ensuring quality standards

Languages

English	Conversational
Hindi	Native