

RAKESH KUMAR SINGH

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Education

Vellore Institute of Technology, Bhopal

B.Tech in Computer Science & Engineering

Jul 2026 (Expected)

CGPA: 8.50 / 10

Delhi Public School, Prayagraj

Class XII (CBSE)

Apr 2021

Percentage: 93.2%

Suman Vidya Niketan, Prayagraj

Class X (UP Board)

Apr 2019

Percentage: 84.3%

Technical Skills

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

Libraries & Frameworks: React, Node.js, Express.js, TailwindCSS, MongoDB, MySQL, Bootstrap, Pandas, NumPy, Flask, RAG

Cloud, AI & Tools : AWS (EC2, VPC, S3), Git, GitHub, Firebase, Clerk, Docker, OpenAI API, GenerativeAI, OCR, Figma

Experience

Google Cloud – Generative AI Virtual Internship

Sep 2024 - Oct 2024

Remote

Virtual Intern

- Completed an AI internship with practical exposure to LLMs, prompt engineering, and Vertex AI workflows.
- Built text generation and summarization prototypes that automated documentation tasks and reduced manual effort by **50%**.
- Collaborated effectively within teams, contributing to improved project delivery and earning multiple AI cloud badges.

Projects

EVOLVE – Fitness Application (2023)

React Native, JavaScript, Firebase, Tailwind, Node.js

- Developed a cross-platform fitness app supporting personalized workout plans, BMI tracking, and progress analytics.
- Redesigned UI/UX using React Native + Tailwind, improving navigation efficiency by 30% and user engagement by 40%.
- Built secure backend workflows with Firebase Auth, Firestore, and Node.js for real-time data sync and cloud storage.
- Implemented modular components and optimized API calls, reducing load times by 25% and improving maintainability.

Doctor Decoder – AI Prescription Reader (Jul 2025)

Next.js, TypeScript, Tailwind, Node.js, Express, Vercel, OpenAI API

- Created an AI system that digitizes handwritten prescriptions with 93% OCR accuracy across varied handwriting styles.
- Developed a multilingual OCR + GPT pipeline to extract medicines, dosage, and notes, improving usability by 60%.
- Built a scalable Node.js + Express backend with secure processing workflows and deployed serverless inference on Vercel.
- Designed a responsive TypeScript + Tailwind UI for smooth interactions and real-time output visualization.

AI Health Intelligence CoPilot (Nov 2025)

FastAPI, Python, LangChain/LlamaIndex, Firestore, React Native, Vector DB

- Developed an AI Health CoPilot that detects anomalies in wearable metrics like heart rate, sleep trends, and activity patterns.
- Built a full RAG pipeline using LangChain/LlamaIndex + Vector DB for personalized and context-aware health insights.
- Implemented FastAPI microservices for real-time data ingestion, inference, and integration with Firestore.
- Designed a React Native interface offering low-latency syncing and seamless cross-platform health monitoring.

Achievements / Leadership

CodeVita 12 – Global Coding Competition

2024

Qualified Round 2 — Secured Top 500 Rank

TCS

- Cleared CodeVita Season 12 and advanced to Round 2 among global participants, securing a Top 500 rank with strong problem-solving and algorithmic skills.
- Implemented optimized solutions in Java/Python for competitive coding challenges focusing on DSA and time-complexity constraints.

Cricket Team Captain, Advitya 2025 College Fest

2025

Team Captain

VIT

- Led the college cricket team during Advitya 2025 Fest; coordinated practice sessions, built team discipline, and improved on-field performance through strategic planning and teamwork.
- Enhanced team collaboration and decision-making under pressure, resulting in competitive match outcomes and increased campus recognition.

Certifications

Postman API Fundamentals Student Expert certification [Link]

MongoDB Associate Developer Certification [Link]