Richa Singh

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Education

- **VIT Bhopal University**
  B.Tech in Computer Science and Engineering -   8.71/10   09/2022- present
- **The Jaintpur Public School**
  Higher Secondary Schooling   85.6 %   2021
- **The Jaintpur public School**
  Secondary Schooling   92.2 %   2019

Coursework

DBMS, OOPS, CN, OS

Skills

Technical Skills:
 Java, Python, C++, JavaScript, HTML, CSS, MySQL, MongoDB, REST API, Gemini API, pdfplumber
Tools & Frameworks:
 React, Bootstrap, Tailwind CSS, Flask, Node.js,,Express.js, Git, GitHub

Projects

Health Tracker (React, Node.js, Express, MongoDB, Google Gemini AI**)**
  - Built full-stack app to track Blood Pressure, SpO2, Heart Rate, Sleep, Steps, Weight, boosting engagement by 35%.
  - Added AI-driven Weekly Suggestions with 90% accurate recommendations, cutting health risks by 20%.
  - Used Chart.js for interactive bar/line charts, increasing session time by 25%.
  - Implemented JWT authentication and protected routes for 100% data privacy, with 2-week data retention and 3-month suggestion archiving.
  - Designed modular, scalable architecture with cron notifications, optimized for cross-device performance.

RAG-Powered PDF Chatbot (Python, LangChain, Gemini AI, ChromaDB Vector Store, Streamlit)
  - Developed RAG chatbot for PDF queries, achieving 95% source accuracy via ChromaDB's persistent embeddings for <500ms search on 500-page docs, accelerating knowledge extraction.
  - Implemented multi-session thread management with encryption, increasing retention 40% through organized, secure conversations.
  - Added persistent history for contextual replies, reducing multi-turn errors 30% with responsive Streamlit UI for cross-device continuity.

Crafter's Corner – Motivational Blog Platform (HTML, CSS, JavaScript, PHP, Hack, Bootstrap)
  - Developed quote feature, raising daily return rate by 25%.
  - Added in-site notes, tripling user engagement time.
  - Built streak system, boosting daily active users by 40%.

Positions of Responsibility

Technical Team member at EDU4U club – VIT Bhopal University   12/2024 -Present
  - Led tech operations for seminars, hackathons, and campus events.
  - Coordinated with cross-functional teams for seamless execution.
  - Improved processes, achieving 15% higher efficiency and 10% cost savings.

Volunteer University Fest Advitya – VIT Bhopal University   01/2023- 02/2023
  - Coordinated event activities, increasing participant satisfaction by 20%.

Highlights

  - Solved 300+ DSA problems across LeetCode, GFG and other platforms.
  - Completed the 100 Days of Code Challenge with consistent daily progress