

# Sanidhya Dwivedi

+91 9305084332 | sanidhyadwivedi2004@gmail.com | linkedin.com/in/sanidhyadwivedi/ | github.com/sanidhyadwivedi2004

## SUMMARY

Results-driven Computer Science undergraduate with hands-on experience in AI/ML, cybersecurity, and full-stack development. Skilled in Python, Java, TensorFlow, OpenCV, and OWASP ZAP. Proven ability to build scalable AI applications, assess vulnerabilities, and deliver secure, real-time tech solutions.

## TECHNICAL SKILLS

**Programming Languages:** Python, Java

**Libraries/Frameworks:** : Javascript, Tensorflow , Scikit-learn , pandas, OpenCV , Pytorch , Flask , MediaPipe , NumPy etc.

**Tools:** Github , Canva , Firebase , VScode , LangChain, ChromaDB

## PROJECTS

### Swasthya Sarthi: AI-Powered Medical RAG Chatbot

May 2025 – July 2025

*Generative AI / Retrieval-Augmented Generation*

*[Python, Flask, LangChain, ChromaDB, JavaScript]*

- Developed a full-stack medical chatbot leveraging Retrieval-Augmented Generation (RAG) with Ollama LLM (phi) and ChromaDB
- Processed 55,500+ medical records using HuggingFaceEmbeddings to generate accurate, real-time responses
- Deployed a scalable UI with Tailwind CSS, achieving sub-10 second latency for complex medical queries

### Real-time Hand Gesture Detection System

Jan 2025 – Mar 2025

*Computer Vision / Real-Time Recognition*

*[Python, MediaPipe, NumPy, OpenCV]*

- Developed a real-time gesture recognition system with 90%+ accuracy using 21-point 3D hand landmarks via MediaPipe
- Gesture classification using NumPy distance metrics and trained new gestures on 50–100 frame samples
- Integrated OpenCV for 30 FPS video processing and JSON-based model persistence, enabling fast user adaptability

## EXPERIENCE

### AI Research Intern

May 2025 – Jul 2025

*IIT Kanpur*

*Kanpur , Uttar Pradesh*

- Collaborated with a research team at IIT Kanpur to design and deploy a full-stack AI-powered medical chatbot using Retrieval-Augmented Generation (RAG) techniques.
- Engineered a local RAG pipeline using Ollama LLM (phi) and ChromaDB, processing 55,500+ real medical documents with HuggingFaceEmbeddings.
- Gained hands-on exposure to LLM integration, full-stack deployment, and scalable architecture design in a research-intensive setting.

### Cyber Security Intern

Feb 2025 – Mar 2025

*The Red Users*

*Remote*

- Conducted in-depth security assessments on web applications, identifying and mitigating critical vulnerabilities such as SQL Injection, XSS, and CSRF using OWASP ZAP on DVWA.
- Analyzed live network traffic with Wireshark to detect brute-force attempts and suspicious activity, enhancing incident detection capabilities.
- Strengthened endpoint protection by securing Wi-Fi hotspots with WPA2 encryption and enforcing strong authentication protocols.

## EDUCATION

### Vellore Institute of Technology

*B.tech Computer Science Engineering*

Bhopal , Madhya Pradesh

2023 – 2027

### Sir Padampat Singhania Education Centre

*Schooling*

Kanpur , Uttar Pradesh

2010 - 2023