

Arpit Sengar

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Professional Summary

A highly motivated and solutions-oriented Computer Science undergraduate at VIT Bhopal, with a strong foundation in AI/ML, full-stack development, and real-world problem solving. Currently serving as Chapter Lead at Omdena VIT Bhopal, where I lead AI-based project execution and cross-functional collaboration. Experienced through multiple internships in developing intelligent applications involving sentiment analysis, computer vision, and Retrieval-Augmented Generation. Passionate about impactful technology, open collaboration, and continuous learning.

Education

VIT Bhopal University, B.Tech. in Computer Science

Sept 2022 – Aug 2026

- GPA: 7.71/10.0
- **Leadership:** Elected President, Omdena VITB Chapter - Lead and Collaborated in 10+ OSS projects
- **Achievements:** Selected finalist for Smart India Hackathon (SIH) 2024 among 2,000+ participating teams

Experience

SDE Intern, Simplify3x – Bangalore, India

Oct 2024 – Dec 2024

- Engineered a context-aware RAG-based system that enhanced chatbot response accuracy by 45% through integrated retrieval and generation techniques
- Optimized conversational AI performance by implementing advanced NLP algorithms and real-time data streaming protocols

AI ML Intern, Paritranya Global Pvt. Ltd. – Bhopal, Madhya Pradesh

Jun 2024 – Aug 2024

- Pioneered a CDSS-based ML model for skin lesion detection integrating Grounding DINO with Meta SAM, achieving 87% diagnostic accuracy
- Executed end-to-end deployment as a production-ready API on Hugging Face, processing multiple daily image analyses

SDE Intern, Rex Industries – Bhopal, Madhya Pradesh

Nov 2023 – Apr 2024

- Constructed advanced computer vision algorithms using OpenCV, delivering 97% accuracy in body pose estimation
- Devised efficient solutions for real-time human pose tracking that reduced latency by 40% over previous implementations

Projects

MaximusML: Enterprise ML Platform

arpy8/MaximusML

- Engineered a streamlined application for dataset management, model training, and AWS S3-based model storage, generating model with up to 95% accuracy.
- Implemented diverse machine learning algorithms creating a versatile platform capable of addressing multiple business use cases
- Designed an intuitive user interface that decreased the learning curve for non-technical users by 75%, as measured through usability testing
- **Technologies:** Python, AWS S3, Streamlit, Scikit-learn, Docker, REST APIs, PyCaret

BaatCheet: Secure P2P Communication Platform

arpy8/BaatCheet

- Architected a secure peer-to-peer video communication platform utilizing WebRTC technology
- Established end-to-end encryption and secure session management protocols compliant with healthcare communication standards
- **Technologies:** JavaScript, WebRTC, Node.js, HTML5/CSS3, Docker

Skin Lesion Classification System

arpy8/Skin

- Spearheaded development of an AI-powered classification system for skin lesions achieving 91% diagnostic accuracy
- Created a Clinical Decision Support System (CDSS) that reduced diagnostic time significantly for healthcare professionals
- Executed deployment as a production-ready API on Hugging Face, with 98% uptime
- **Technologies:** Python, PyTorch, Hugging Face, Docker, RESTful APIs

CNN-Based Plant Disease Detection

arpy8/Plant

- Constructed a custom Convolutional Neural Network (CNN) model achieving 90% accuracy across 38 different plant disease categories

- Instituted a systematic validation approach with 5-fold cross-validation to ensure model reliability across diverse plant species
- Developed and deployed a web application enabling real-time disease diagnostics with average response time of 1.5 seconds
- **Technologies:** Python, TensorFlow/Keras, FastAPI, RESTful APIs, Docker, Streamlit

Certifications

- Developing an AI Chatbot for Bhopal's Bus Rapid Transit System (BRTS) Navigation
- TCS iON Career Edge – Young Professional
- Introduction to Deep Learning & Neural Networks with Keras
- The Complete 2024 Web Development Bootcamp
- Python (Basic) Certificate

Skills

Languages: English (Professional), Hindi (Native)

Soft Skills: Leadership, Communication, Adaptability, Collaboration

Programming Languages: Python, C++ , JavaScript, TypeScript

Tools & Technologies: Unix/Linux, Docker, AWS, Git, GitHub, Selenium, Postman, TensorFlow, React, MongoDB

Technical Expertise: Machine Learning, Cloud Computing, Information Retrieval, Data Storage, Computer Vision, Natural Language Processing, API Development