

ARPIT SENGAR

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Skills

- **Languages & Domains Covered:** Python, C++, JS, TS | App Dev, Web Dev, CV, Web Scraping, ML + DL, IoT, 3D Designing
- **Softwares & Tools:** Fusion 360, Figma, Illustrator, Photoshop, Arduino IDE

Experience

SDE Intern

Simplify3x Software Pvt. Ltd.

09/2024 - 12/2024

Developed a context-aware chatbot using a Retrieval-Augmented Generation (RAG) approach, improving response accuracy by integrating retrieval and generation techniques. Gained experience with WebSocket connections for real-time, bidirectional communication, enhancing chatbot responsiveness. Strengthened skills in NLP, real-time data streaming, and conversational AI optimization for seamless user interactions.

AI/ML Intern

Paritranya Global Private Limited

06/2024 - 08/2024

Developed a CDSS-based ML model for skin lesion detection using Grounding Dino with Meta SAM. Deployed the solution as an API on Hugging Face, enabling efficient and accurate medical image analysis..

Junior ML Engineer

Omdena

04/2024 - 07/2024

- **Developing an AI-Driven Sentiment Analysis Tool for Political Actors in El Salvador.** (May 2024-July 2024)
Selected for the AI Innovation Project following a year of contributions to local chapter initiatives. As a key member, I was primarily responsible for deploying team-developed model and api solutions, while also contributing to various other project initiatives.

SDE Intern

Rex Industries

11/2023 – 04/2024

In my role as a Software Developer, I specialized in creating effective computer vision scripts using **OpenCV**, with a particular emphasis on developing solutions for accurate body pose estimation.

Local Chapter Contributor

Omdena

04/2023 - 04/2024

- **Alzheimer's Disease Early Detection Project - Toronto Chapter.** (Nov 2023 - Feb 2024)
The goal of this project was to leverage the power of artificial intelligence, specifically machine learning and computer vision techniques, to analyze brain scan images for the early detection and diagnosis of Alzheimer's disease, Parkinson's disease, and Multiple Sclerosis.
- **Water Management and Forecasting Project in Algeria and Bhopal - Algeria Chapter.** (Oct 2023 - Feb 2024)
The team aimed to empower Algeria & Bhopal to make informed decisions, optimize resource allocation & build resilient water infrastructure for a sustainable future by developing a time series model to forecast water availability.
- **Developing an Interactive Chatbot for the Omdena Website - Nigeria Chapter.** (July 2023 – Sept 2023)
Developed an interactive chatbot using **RASA** to address the challenge of managing and disseminating information on Omdena's website.
- **Identifying Diseases in Chest X-Rays & COVID-19 Detection - Myanmar Chapter.** (July 2023 – Sept 2023)
This project aimed to reduce the dependency on scarce human resources and improve diagnostic efficiency, thereby enhancing overall healthcare quality.
- **Water Quality Prediction System - Rwanda Chapter.** (May 2023 - July 2023)
Developed and deployed an accurate and efficient **Support Vector Machine** that can predict water quality based on a range of parameters.
- **AI Based Road Inspection System - Mexico Chapter.** (Apr 2023 - Jun 2023)
Contributed to training a **YOLOv8** model on a custom pothole dataset and used **Roboflow** for data annotation.

Education

B. Tech CSE (spec. in AIML)

VIT Bhopal University

7.55/10

09/2022 - 10/2026

High School

Nehru World School

86%

02/2020 - 05/2022

Projects

- **Prosthetic Hand:** Built a working model of a prosthetic hand with 5 degrees of freedom (02/2025)
- **RCPS:** Developed a local network TeamViewer alternative utilizing websockets and GUI automation (06/2024)
- **Maximus ML:** A machine learning tool that allows you to build and deploy ml models with high level of abstraction (08/2024)
- **DisDial:** A terminal-based IRC-inspired tool that enables users to chat on a single server with everyone anonymously (11/2023)

Others

- Lead at [Omdena VIT Bhopal Chapter](#) (08/2024 - current)
- Operational Manager at AI Club VIT Bhopal (02/2024 - 09/2024)
- Technical Team Member at GFG Student Chapter, VIT Bhopal (08/2023 - 02/2024)
- Secured 2nd position in Preprod Corp Buildathon 2024 (Aug 2024)
- Qualified for the Grand Finale of the Smart India Hackathon (Dec 2024)