

Hemani Nainesh Shah

📍 Valsad, Gujarat ✉️ hemanishah00@gmail.com ☎️ +919924475599 🔗 LinkedIn 🐙 Github

📁 Work Experience

ARThink AI

08/2023 - 07/2024

Data Scientist

- Implemented an end-to-end pipeline for a virtual assistant that went through speech-to-text, RAG and text-to-speech.
- Implemented a pipeline for multilingual speech-to-text in Indian languages and translation into another language.
- Set up a pipeline to finetune Vision Language Model on custom datasets. Used various techniques like quantization and LoRA for optimization.
- Finetuned Llama for a fitness application.
- Created a POC for attendance management using facial recognition with video-to-video comparison, to capture different facial expressions, lighting conditions, and angles for each user.
- Created a chatbot for customer service at an airport, explored structured agents and OpenAI function calling to call various functions that gave information related to various services offered by the airport like parking, bus services, etc. Used various techniques like prompt engineering and RAGs to ensure accurate information was given.
- Developed an automated image processing pipeline for classifying spectacle prescription images and extracting key information. Implemented ROI detection using YOLO to standardize prescription information extraction. Established quality control measures, to ensure the accuracy and reliability of extracted data.

DeetsDigital

02/2023 - 07/2023

Data Science Trainee

- Implemented Super Resolution to enhance the quality of images taken by drones to perform object detection.
- Automated the process of extracting information from invoices (in PDF format) and converted to Excel format the way the client needed.
- Used OCR to extract information from forms containing multiple languages.
- Created POC for sentiment analysis on human facial data using CCTV footage of people waiting in queues.
- Extracted information from resumes using OCR to map them to the most compatible job descriptions using LLMs to map them dynamically.

Univ.AI

04/2022 - 01/2023

Teaching Assistant

- Worked under Faculty from Harvard University to develop coursework for Regression and Classification problems, Model selection techniques, Hypothesis testing, etc. Helped students debug code and understand ML concepts.

Advanced Business & Healthcare Solutions - Internship

01/2022 - 06/2022

Quality Analyst Trainee Intern

- Created test cases. Learned various tools like Postman, Cypress, Zephyr and Jira.

🎓 Education

Bachelor of Computer Engineering

2018 - 2022

Gujarat Technological University

9.02/10 - CGPA

📁 Projects

EDAA: Emotion Detection And Analysis [🔗](#)

Created a web app that generated a report of audience reactions. We considered video(facial expressions of the audience) and text(context of the speech). The goal of this app was to help public speakers improve their speeches. Read more about it here [🔗](#)

PharmaBot [🔗](#)

Created a Bot that calls customers or customers can call and ask questions and their questions will be answered using IBS, ASR, RAG using LLM, text-to-speech and Twilio.

FireBrand analysis using hybrid ANN-CNN. [🔗](#)

Used CNNs to classify images of FireBrands into 3 categories: Cylinder, sphere and disk. Created a hybrid model to combine image and tabular data to perform regression and predict the volume of the FireBrand. Used a CNN branch to predict the shape of the FireBrand and one hot encoded it to input it to the ANN branch along with other information like the distance from the camera and coordinates to predict the volume of the FireBrand.

📄 Certificates

- Google Data Analytics Professional Certificate [🔗](#)
- Google IT Automation with Python [🔗](#)
- Univ.ai Master ML & AI [🔗](#)
- Career Essentials in Generative AI by Microsoft and LinkedIn [🔗](#)

🧠 Skills

Python | Data Science | Machine Learning | Artificial Intelligence | Deep Learning | Tensorflow | Keras | Statistics | SQL | Langchain | Generative AI | LLM | Flask | Streamlit | Computer Vision | Streamlit | RAG | Huggingface | Azure AI - Face API | Azure AI - Document Intelligence | Llama | Llava | OpenAI - GPT- 3.5 / 4 | OpenAI text-to-speech | OpenAI Whisper | Git and Github | Deepface | OCR | Visual Question Answering | OpenAI function calling