Ashish Jain

+91-6261054038 | ashish.jain1304@gmail.com | LinkedIn | Github | Hugging Face

EDUCATION

Medi-Caps University | Indore, India — **2018 – 2022**
Bachelor of Technology in Information Technology — *CGPA:* **9.2/10**

Paramount Academy | Barwani, India — **2017 – 2018**
Higher Secondary — *Grade:* **91.2%**

PROFESSIONAL EXPERIENCE

Tata Consultancy Services — **Mumbai, India**
AI ML Engineer — *June 2022 – Present*

- Developed a RAG-based customer support chatbot using GPT models via **Azure OpenAI** and **Langchain**.
- Enhanced AI safety by implementing **Azure Content Safety** guardrails and implemented access controls and security policies via Azure API Management (APIM).
- Containerized applications with Podman, orchestrated deployments on Azure Container Services (ACS), and built automated **CI/CD** pipelines.
- Built a time-series forecasting application to predict the number of incidents based on 3 years of data using ARIMA, SARIMA, and Neural Prophet models.
- Automated document processing by developing an **OCR pipeline** with **Table Transformer**, achieving 93% accuracy and removing manual data entry inefficiencies.
- Built a no-code ML platform enabling non-technical users to train models for classification, object detection, and segmentation tasks.
- Led **10+** POCs in Generative AI, supporting multiple teams in building AI/ML solutions for customers.

Tata Consultancy Services — **Mumbai, India**
AI ML Developer Intern — *Jan 2022 – Apr 2022*

- Designed an application using **PIFuHD** to produce detailed 3D human models from single-view 2D videos.
- Trained a CNN model to automatically identify and extract the optimal frame from a video sequence.

Food Vybe Inc. — **Remote**
Python Developer Intern — *Feb 2021 – May 2021*

- Created Python scripts to trigger **AWS Lambda** functions for extracting and storing restaurant data and images in a **MongoDB** database, while managing test and production databases.
- Developed a **Django**-based web application to help users explore restaurant vibes and make informed decisions.

PROJECTS

RAG Techniques Explorer | Github | *Python, Langchain, Faiss, Ragas, FastAPI, React*

- Created a platform for users to explore, analyze, and compare different RAG techniques (Simple RAG, Query Transformation RAG, Re-Ranking RAG) and evaluated their performances using **Ragas**.
- Implemented advanced **query transformation** methods such as Query Rewriting, Step-back Prompting, and Sub-query Decomposition, each improving the quality of the query passed to the retrieval system.
- Built a full-stack solution, integrating React frontend with FastAPI backend for real-time query-response interactions.

TalktativeX: Fine-Tuned SmolLM2 for Hinglish Conversations | Hugging Face | *Python, Hugging Face, Transformers, PEFT*

- **Fine-tuned** SmolLM2-135M using LoRA (Low-Rank Adaptation) on a **50K** sample Hinglish conversational dataset
- Preprocessed and tokenized a custom Hinglish conversational dataset, ensuring optimal formatting for causal language modeling and chat-based responses.

Neural Machine Translation: German to English with Encoder-Decoder Model | Github | *Python, NLP, Tensorflow, Keras*

- Trained an **Encoder-Decoder** model with GRU-based RNNs to translate German text into English.
- Preprocessed and tokenized English and German text datasets for model training.
- Evaluated translation quality using **BLEU Score** and optimized performance via early stopping and model checkpointing.

TECHNICAL SKILLS

Software Development: Python, OOPS, Django, Flask, FastAPI, SQL, C++, HTML, CSS, Gradio, Streamlit, Git.
Artificial Intelligence: Generative AI, Natural Language Processing, Computer Vision, Machine Learning, Deep Learning.
Tools and Packages: Hugging Face, LangChain, Ollama, NumPy, Pandas, Scikit-learn, Pytorch, Keras, Tensorflow, MLflow.
Cloud Services: Azure, AWS

ACHIEVEMENTS

- **AWS Certified Cloud Practitioner.**
- **Azure AI-900 Certified – Microsoft AI Fundamentals.**
- Received On-the-Spot Awards for Building Generative AI Applications.
- Received Customer Appreciation Certificate for Building OCR Pipeline.
- Achieved All India Rank 1420 in GATE Computer Science.