

Nischitha.D

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Professional Summary

AI Engineer with six months of experience in Natural Language Processing, FastAPI and Graph Database. A five-star Python coder on HackerRank, skilled in fine-tuning large language models and Retrieval-Augmented Generation.

Achievement

MachineHack Sequence Classification Hackathon

- Secured 13th place in the MachineHack Sequence Classification Hackathon, where I fine-tuned Google BERT for multi-class classification.

Education

Don Bosco Institute of Technology , BE in Computer Science

Oct 2020 – June 2024

- CGPA: 8.1/10.0
- Coursework:** Data Analytics, Data Science , Python

Experience

AI Engineer, Alongx Software – Telangana, India

June 2024 – Nov 2024

- Built backend applications for the News360 app using **FastAPI**, incorporating in-memory cache to ensure scalable API performance and Build **Microsoft Azure Logic App** to automate email delivery of OTPs for password reset.
- Developed a web scraper for US news channels by using **BeautifulSoup**, **SpaCy** and **newspaper3k** to extract and process real-time news articles.
- Optimized complex relationship mapping and querying by utilizing **graph databases** such as **Gremlin** and **Neo4j**, thus improving data retrieval efficiency.
- Implemented the **T5 Transformer model** for concise text summaries.

Projects

Breast Cancer Prediction

- Analyzed breast cancer data using libraries in Python like **Pandas**, **NumPy**, and **Scikit-learn**.
- Implemented **Logistic Regression**, **Decision Trees**, and **Random Forest models** for disease diagnosis, achieving **97%** accuracy with Random Forest, **96%** accuracy with Logistic Regression, and **93%** accuracy with Decision Trees and Checked model accuracy and performance using precision, recall, and F1 Score .

Question-Answering Agent

- Built an accurate and cost-effective question-answering agent for Insurellm Tech Company using **Retrieval-Augmented Generation** with **LangChain**.
- Added a **Chroma vector** store to efficiently manage the retrieval of document and conversational memory.
- Created an interactive Gradio interface to allow for smooth and user-friendly interaction.

Airline AI Assistant

- Developed an AI-powered multimodal customer support assistant for an airline using OpenAI LLM **GPT-4o-mini**, **TTS-1**, and **DALL-E-3**.
- Automated retrieval of ticket price and vacation-themed image generation.
- Added text-to-speech functionality for audio responses and implemented a **Gradio**-based user interface.

Skills

Technical Skills: Python, Pandas, NumPy, SQL, Scikit-learn, RAG , Model Context Protocol , Flask, FastAPI, Seaborn, Machine Learning, Natural Language Processing, Deep Learning, Generative AI.

Soft Skills: Communication, Teamwork, Leadership.