Abhishek Uniyal

Indirapuram, Uttar Pradesh, India.
9717727898 | abhishekuniyal2123@gmail.com
https://github.com/abhishekuniyal2024/Projects.git
www.linkedin.com/in/abhishek-uniyal21

Profile

AI/ML Engineer with hands-on experience in Deep Learning, Computer Vision, and NLP, including multimodal models like image captioning. Skilled in building and deploying AI pipelines using TensorFlow, OpenCV, and NLTK. Proficient with containerization tools like Docker for robust deployment. Currently learning Generative AI (LangChain, Hugging Face) and AWS SageMaker. Proficient in Python, SQL, and Power BI.

Experience

- **The Poll News** 9 May 2021 - 8 Jan 2022
  Trainee - Full Stack Developer
  - Developed and maintained a web application using Python and Django.
  - Designed and implemented a RESTful API for data exchange between front-end and back-end systems.

Education

- **Guru Gobind Singh Indraprastha University** 2020
  MCA - 65.2%

Certifications

- **Data Science** - Ducat 24 April 2024 - 14 June 2025
- **Generative AI course with LangChain and Hugging Face** - Udemy 14 April 2025 - Ongoing

Skills

- Programming: Python (FastAPI, Scikit-learn, TensorFlow, Keras, OpenCV, Tesseract OCR, NLTK), SQL.
- Data Analysis & Visualization: Power BI, Microsoft Excel.
- Deployment & Containerization: Docker
- Cloud Platforms: AWS SageMaker (Learning)

Core Competencies

- Machine Learning.
- Deep Learning and Neural Networks.
- Generative AI: LangChain, RAG, LLM (Learning).

Projects

- **Image Captioning using CNN-LSTM, FastAPI and Streamlit**
  - Developed an end-to-end image captioning model using CNN for image feature extraction and LSTM for text generation.
  - Trained on Flickr8k dataset with custom preprocessing, tokenization, and vocabulary building.
  - Deployed the model using FastAPI as a backend inference API and built a Streamlit frontend that interacts with the API to generate human-like image captions for uploaded images.
  - Implemented Docker containerization to package the application and its dependencies, ensuring portability and reproducibility across different deployment environments.

- **Fake News Classification using LSTM**
  - Developed an LSTM model (92% accuracy) using NLTK for text preprocessing (one-hot encoding, padding) with dropout to reduce overfitting. Deployed it using FastAPI for real-time predictions.

- **GenAI Document Q&A System**
  - Developed a Retrieval-Augmented Generation (RAG) system for document question-answering using Langchain, Ollama (for document embeddings), and Groq's Llama 3.
  - Applied GenAI techniques to improve information retrieval from local documents.