Abhijeet Mishra

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Education

VIT Bhopal University

Bhopal

Bachelor of Technology in Computer Science and Engineering - CGPA: 8.39/10

2022 - Present

Narayna Junior College

Hyderabad

Intermediate - 93.4%

2021 - 2022

Air Force School

Hyderabad

Secondary - 92.6%

2019 - 2020

Experience

Motherson Technology Services Limited

Nov 2024 - Jan 2025

Project Trainee — GenAI and NLP

- Developed and evaluated three approaches for building an Excel-based query response model to extract relevant data from input files, achieving 85%+ accuracy in retrieval.
- Designed preprocessing workflows to remove irrelevant noise, ensuring up to 30% cleaner data for model input.
- Implemented the best-performing solution using the Transformers library and the all-MiniLM model for embedding parsed values.
- Created a similarity score comparison function, improving query matching accuracy.
- Gained hands-on experience in NLP, Pandas, regex, and advanced data preprocessing techniques.

Projects

1. Multi-Modal Query Response System

GitHub

- Developed a Multi-Modal Query Response Model that processes PDFs of up to many pages and allows users to interact via text or voice queries, delivering 90%+ accurate responses extracted from document content.
- Implemented Optical Character Recognition (OCR) and Natural Language Processing (NLP) using Google Gemini AI, achieving 90%+ character recognition accuracy.
- Leveraged Retrieval-Augmented Generation (RAG) architecture to enhance query responses with contextually relevant information, ensuring high accuracy in extracted answers.
- Built a user-friendly web interface using Streamlit, enabling real-time PDF uploads, voice-based queries, and dynamic response generation, reducing response latency by 50%.
- Optimized performance with rate-limiting mechanisms and efficient data embeddings, improving the system's response time and reliability for large documents.

2. AI-Powered Virtual Assistant

GitHub

- Developed a modular AI Voice Assistant in Python enabling hands-free interaction through Speech Recognition and Text-to-Speech, handling over 20+ common user commands efficiently.
- Implemented context-aware intent recognition using spaCy and Sentence Transformers, achieving an average classification accuracy of 90% across varied test cases.
- Enabled multitasking support by handling diverse functionalities such as real-time information retrieval, entertainment queries, and knowledge lookups, improving user experience by covering multiple daily use scenarios.
- Integrated 5+ third-party APIs (weather, Wikipedia, jokes, IP lookup, advice, etc.) to deliver real-time responses with an average latency of less than 2 seconds.
- Designed an extensible architecture that supports seamless addition of new modules, ensuring maintainability and future scalability of the assistant.

Technical Skills

Languages: C++, Python, SQL, HTML

AI/ML & NLP: Machine Learning, Generative AI, Natural Language Processing, RAG, Sentence Transformers, Hugging

Face, LangChain, LLM Fine-Tuning, Prompt Engineering

Libraries and Frameworks: Pandas, NumPy, Scikit-learn, Matplotlib, Plotly, Streamlit

APIs and Cloud: : REST APIs, Basic AWS exposure **Developer Tools:** : VS Code, Jupyter Notebook

Soft Skills: : Problem Solving, Collaboration, Communication, Critical Thinking, Quick Learning

Certifications

- Bits and Bytes of Computer Networking Coursera Certificate
- AI Fundamentals with IBM SkillsBuild Cisco Networking Academy Certificate