NIDHISH ANIL WAKODIKAR

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Education

Vishwakarma Institute Of Technology Pune , India   **2022 - 2026**
- Artificial Intelligence and Data Science | CGPA: **8.78**

Government Technical College, India   **2020 - 2022**
- *(Class XII), Aggregate: 86%*

Skills

C/C++ | Python | Data Structures and Algorithms | Database Management | Object Oriented Programming | Pandas | Seaborn | Matplotlib | TensorFlow | Keras | Torch |YOLO | Object Detection | LSTM | ANN | CNN | BERT | Transformers | OpenCV | Pytorch | Encoder-Decoder Models | Machine Learning | Sci-kit learn | NLP| Langchain | LLMs | Gradio | Hugging Face | GANs

Projects

Geospatial Data Retrieval RAG Bot - ISRO BAH PS-12 Winning Project , AIR 4   Project Repository: ISRO-BAH
Developed a context aware geospatial data retrieval bot utilizing RAG architecture to enhance and data retrieval efficiency for NRSC - Hyderabad.
- Tech stack - Django, PostGIS, Python, BERT, React, Qdrant (Vector DB), Flask, Langchain,Groq, Mixtral ,Llama.
- Implemented **RAG** architecture for advanced data retrieval, Langchain for context awareness and utilized **GeoBERT** for optimizing geospatial query processing by **50%**.
- Employed POSTGIS for efficient handling and querying of geospatial data and Qdrant (Vector DB) to store text data.
- Integrated caching mechanisms to improve response times and reduce load on the system using Django.

AlphaBot0.7 - IEEE Chatbot   Project Repository: AlphaBot 0.7 - IEEE Chatbot
Developed a generative Chatbot specifically designed for handling IEEE FAQs, research inquiries, internship and placement queries, as well as data structures and algorithms (DSA) questions.
- Tech stack - Python , Hugging face , Transformers , Numpy , Pandas , Qlora and Peft.
- Employed **QLORA** (Quantized Low Rank Approximation) and **PEFT** (Parameter-Efficient Fine-Tuning) techniques to fine-tune the chatbot's hyperparameters, significantly boosting its performance and responsiveness.
- Integrated the **LLAMA 2** model to enhance the chatbot's conversational abilities, ensuring more accurate, context-aware, and engaging interactions with users.

SentinelAI - YouTube Comment Sentiment Analysis and Trend Visualization   Project Repository: YT Analyser
Developed a multilingual system for sentiment analysis that categorizes YouTube comments into various categories such as positive, negative, absurd and informative. This system provides insightful summaries, helping content creators understand their audience better.
- Tech stack - Python , Hugging face , **Transformers** , Numpy , Pandas , Matplotlib , Streamlit.
- Implemented features that provide multilingual transcriptions, allowing content creators to reach and engage with a broader, more diverse audience.
- Created visualizations mapping date-time data against user engagement metrics, facilitating trend analysis and helping content creators understand peak activity times and engagement patterns.

Academic and Extracurricular Achievements

- **ISRO - BAH'24 PS-12 Winner , All India Rank - 4**
- **Scopus Indexed Traffic Flow Optimizer: Traffic Signal Control With Vehicle Density and Algorithms**
- **LeetCode 700+ Questions , (MAX 1701)**
- Codechef - 3 Star (MAX 1604)
- Smart India Hackathon 2023 Finalist (Waitlist , top 6 out of 400 teams)

Positions of Responsibility

IEEE - Institute of Electrical and Electronics Engineers| Coding Club Head 24 - 25