AJINKYA WALUNJ

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SKILLS

- Languages: Java, Python, Clanguage, R, JavaScript.
- Libraries: Scikit-Learn, TensorFlow, React, AgnoAI,
- **Tools**: Git (Beginner), MySQL (Intermediate), Jupyter Notebook.
- Others: Data Structures and Algorithms, Natural Language Processing (NLP), DBMS, Operating System, Computer Network, Artificial Intelligence, Data Science, Object Oriented Programming, Fine-tuning LLMs, Generative-AI, Prompt Engineering, RAG, AI Agents, MCPs.
- **Soft Skills**: Teamwork, Leadership, Communication.

WORK EXPERIENCE

QED42 - Web Development Intern

GIT, React.js, JavaScript, Next.js, RAG, Python, Drupal

Present

PROJECT(S)

RAG App for PDFs Source Code

Python, Sentence Transformers, Qdrant, HuggingFace, Streamlit

Apr 25-Apr 25

- Built a lightweight RAG (Retrieval-Augmented Generation) app that answers user questions from uploaded PDFs using semantic search and generative models.
- Used pdfplumber for PDF parsing, SentenceTransformers (all-MiniLM-L6-v2) for embeddings, and Qdrant (inmemory vector DB) for vector similarity search.
- Integrated a HuggingFace-based text2text generation pipeline for answer generation.

Customer Churn Prediction

Source Code

Python, Pandas, Scikit-learn, EDA, Matplotlib

Jun 24- July 24

- Performed data-handling and Exploratory Data Analysis to identify trends and patterns in customer behavior.
- Implemented multiple models, including Logistic Regression and Random Forest on both imbalanced and balanced (applied SMOTE) data.
- Evaluated and Compared results of Logistic Regression and Random Forest on both balanced and imbalanced data on classification metric like accuracy, precision, and recall, etc.

Video Translation System (Guided by - Atlas Copco)

Source Code

Python, Whisper-AI, NLP, Fine-tuning LLM, OpenAI API

Mar 24-May 24

- Successfully implemented speech to text using Whisper-AI which makes subtitle generation much more efficient, and timesaving compared to traditional methods involving SRT file.
- Fine-Tuned LLM (GPT) on videos provided by Atlas Copco to translate text from English to German and French.
- Compared results of subtitle text-translation using BLEU score metric for multiple pre-trained machinetranslation models including mBART, Opus-NMT, Deep-Translator, Argos-Trans, Google-Trans, Fine-Tuned LLM.
- Fined-Tuned LLM gave best results i.e., BLEU score: For French 72.01, For German 62.01

Fish Species Identification

Source Code

Python, Deep Learning, Web-Scrapping, Flutter, OpenAI API

Feb 23-Apr 23

- Developed a Mobile Application for Android platforms that identifies the species when uploading a picture.
- Assembled a dataset by collecting images from multiple sources and platforms. Number of classes 44
- Performed Image Data loading, Image Data pre-processing, Model building, Model training, Hyper-parametertuning, and real-time location-based pricing.
- Gives an accuracy of 94.55 %. The app was tested on fish in local fish markets.

EDUCATION

Vishwakarma Institute of Technology – B-Tech, Computer Engineering (CGPA - 8.87)

Present **Pune**

ACHIEVEMENT(S)

Solved over 600+ problems across LeetCode and GeeksforGeeks, showcasing strong algorithm and data structure skills. LeetCode | GFG

Awarded for outstanding contributions to the 'Translate Existing English Videos into Different Languages' project at Atlas Copco **Certificate**

"Fishify: A Mobile-Based Fish Species Identification App with Transfer Learning Using MobileNetV1". Presented at SmartCom 2024 and subsequently Published by Springer.

"Edu-lingo: A Unified NLP Video System with Comprehensive Multilingual Subtitles", published as research by IEEE in IEEE Xplore.

"MediAI: An AI Based Guide for Medical Content Authenticity Analysis", published as research by IEEE in IEEE Xplore.

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