Divax Shah

+91-8866572525 divax12345@gmail.com linkedin Github HuggingFace

Education

Parul Institute of Engineering and Technology **CGPA: 8.2**
B.Tech, Computer Science and Engineering *2024*

Gyanmanjari Secondary and Higher Secondary School, Bhavnagar **Percentage: 64%**
GHSEB, Gujarat *2020*

Skills

Technologies: Python, TensorFlow, OpenCV, NumPy, Pandas, Matplotlib, Seaborn

Frameworks: Keras, PyTorch, scikit-learn, HuggingFace -Transformers, Streamlit, Tkinter

APIs: OpenAI API, Google Gemini API

Experience

Jr. Python Developer **May 2024 : Present**
Thinkbiz Technology Private Limited

- Currently developing an advanced pipeline for Jugaad, Thinkbiz's own product, leveraging OCR (Optical Character Recognition) and LLM (Large Language Model) technologies to extract and process text from various types of invoices. This involves thorough research and evaluation of open-source tools, including OCR systems and language models.
- Conducted extensive exploration and testing of open-source OCR and LLM tools to determine their efficacy in handling diverse invoice formats and languages. Built and curated specialized datasets to enhance the accuracy and reliability of the text extraction process, ensuring the system's robustness and scalability for real-world applications.

AI and Synthetic Data Developer Intern **January 2024 : April 2024**
DMI Finance Private Limited

- Developed a generative AI system for synthetic structured data generation, from concept to deployment. This involved creating a pipeline with Python and Gradio for data cleaning, deduplication, and embedding, enhancing data quality for generative models. Additionally, I designed a robust training framework using PyTorch and Hugging Face's Transformers, enabling fine-tuning Large Language Models (LLMs) with diverse datasets, significantly improving model accuracy and performance.
- Introduced a user-friendly Gradio interface to streamline synthetic structured data generation, facilitating easy data synthesis for users and enhancing customer interaction with the system. This interface significantly simplified the synthetic structured data generation process for users.

Projects

Geolocation through Image Classification | *Paper (arxiv.org)* | *Model Developer* **May 2023 : November 2023**

- Worked as the core model developer on a 4-person team for this final year project. My responsibilities include designing, training and optimizing deep learning models to identify Indian cities from user-uploaded images.
- Trained a deep learning model on a dataset of 10,500 images depicting 5 Indian cities, achieving 66.3% accuracy. Implemented transfer learning using a VGG16 CNN model for feature extraction and deployed it using Flask.

Character Chatbot | *LLM Finetuner* **March 2023 : May 2023**

- Curated a dataset of movie character dialogues and fine-tuned a GPT-2 model facilitated by PyTorch and the HuggingFace library on this data for interactive text generation.
- Built a conversational Natural Language Processing (NLP) chatbot using Python, TensorFlow, and HuggingFace Transformers, enabling users to have natural, engaging text-based conversations with popular fictional characters such as Tony Stark (Iron Man) and Harry Potter.

Itinerary Generator | *LLM Finetuner* **October 2023 : November 2023**

- Developed a more improved itinerary builder by Finetuning GPT-2 on 119 rows of worldwide trip plans, using PyTorch, Hugging Face's Transformers, and a dataset generated by GPT-4 for subtle itinerary generation.
- I was responsible for the model development from inception to testing which comprised training, fine-tuning, and deployment that allows the generating of travel itineraries on demand using a saved and easily accessible model and tokenizer.