Sean Rodrigues | Phone: 3512303282

E-Mail: seanrodrigues12@gmail.com Github: http://github.com/seanrodrigues1 LinkedIn: (26) Sean Rodrigues | LinkedIn

Education:

Master's, Computer Science (Concentration in Data Science), Fitchburg State University, MA, USA	Dec 2023
Master's, Management/Business, University of Mumbai	May 2020
BSC Information Technology, University of Mumbai, India	Apr 2017
DP-203 Data Engineering on Microsoft Azure, Udemy	Aug 2023

Skills:

• Python • SQL • LLMs • NLP • Gen AI • Machine Learning • Computer Vision • Microsoft Azure Cloud • DevOps (Basics)

Projects:

For all projects refer: Your Repositories (github.com)

Sentiment Analysis using LLAMA2: (LLM/Gen AI)

- Utilized the pretrained LLAMA2 chat **LLM** model, performed **prompt engineering** and implemented Streamlit web framework to create a webpage hosting an application which performs sentiment analysis of a given input review/comment and returns the sentiment (positive, negative", or neutral).

Q&A Chatbot using Gemini Pro: (LLM/Gen AI):

- Utilized pretrained Gemini Pro LLM model and Streamlit web framework to create a webpage hosting a question answering chatbot application. Implemented Gemini API key to connect and gain access to the open source LLM model.

Blog Generator using LLAMA2: (LLM/Gen AI)

- Utilized pretrained LLAMA2 chat LLM model and Streamlit web framework to create a webpage hosting a blog generator application which generates a blog on any input topic.

Language Translator using LLAMA2: (LLM/Gen AI)

- Utilized the pretrained LLAMA2 chat LLM model and implemented Streamlit web framework to create a webpage hosting a language translator application which converts the given input text into the desired language.

Nutrition Doctor Multimodal AI App: (Generative AI):

- Utilized pretrained Gemini Pro Vision **multimodal** text & image model to develop an AI Doctor which can tell the nutrients of the given image containing food items. Created a frontend application using Streamlit.

Document Q&A RAG LLM App: (Retrieval Augmented Generation):

- Developed a RAG LLM system to query from pdf's containing product data of my hypothetical company Sean Inc. Utilized Llama index for indexing the text embedding vectors and Llama2 chat LLM model from Hugging Face for the question answering usecase.
- Utilized Streamlit for the front-end web application development.

Image classification (Computer Vision):

- Developed a AlexNet, VGG16 and Resnet image classification model using the "keras" deep learning library to classify the weather in the image as rainy, cloudy, shiny or sunrise.
- Wrote code from scratch to develop the AlexNet model.

Object Detection using YOLOV7: (Computer Vision)

- Developed and annotated a custom image dataset and used state of the art Yolo V7 pretrained model to predict the type of object (Pen, Water bottle or Phone) in my hand and its bounding box location with 73% accuracy.

Bank Customer Churn Prediction: (Python)

- Developed a **classification** model to predict if a bank customer will discontinue his/her bank account or not based on factors such as credit score, tenure etc. with 87 % accuracy and a recall of 52%.
- Model and Evaluation: Evaluated several Machine Learning models such as logistic regression, SVM, random forest, XG Boost as well as an Artificial neural network Deep Learning model using Scikit-Learn & **TensorFlow** libraries.

Car Sell Price Prediction Application: (Python)

- Developed a **regression** model to predict the selling price of a car based on features such as fuel type, present price etc. with mean absolute error of 0.58 on the final selected XG Boost Regressor model.
- Created a frontend web application using Flask and utilized CI-CD pipelines to deploy the application on Heroku Cloud.

Work Experience:

EDGE, Bangalore, India - Data Science Intern Feb 2020 – Aug 2021

- Spearheaded the transition from manual reporting to automated reporting by writing python scripts and utilizing **Azure** data factory pipelines which resulted in decrease in access time by 48 hours.
- Collaborated with business analysts & created **dashboards** & **reports** on **Excel** to track key performance indicators (**KPIs**), optimized visualizations by 30% using python and presented findings to data science head in a clear & concise manner.
- Utilized libraries such as pandas, **matplotlib**, seaborn to extract, clean, transform and visualize gigabytes of unstructured data.
- Developed efficient T-SQL scripts to perform ad-hoc analysis of data from **MS SQL Server** and increase query performance by 40%.