Sri Charan Thoutam

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CodeWithCharan

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in CodeWithCharan

INTERNSHIPS

Data Science & GenAl Intern

Innomatics Research Labs

- **Sep 2024 Dec 2024**
- Conducted comprehensive Exploratory Data Analysis (EDA) to uncover trends, detect outliers, and analyze relationships within datasets.
- Developed Al-powered solutions leveraging Generative Al techniques to address real-world challenges.
- Project Lead: Led a 6-member team to develop GenAI-powered Discord bots for text and image generation. Successfully developed two bots:
 - Boa: A conversational text-generation bot utilizing LangChain, Google Gemini API, and ChromaDB for context-aware responses using RAG.
 - Kiku: An advanced bot enabling text extraction from images using PyTesseract and text-to-image generation using Stable Diffusion API.
- Key Projects:
 - 1. Diamond Price Prediction with MLOps: Project Summary
 - 2. Electric Vehicle Data Analysis: Analysis Insights
 - 3. Boa Al: Project Overview

EDUCATION

B.Tech in Computer Science and Engineering (AI & ML) Ganapathy Engineering College

i 09/2021 - 07/2024

CGPA: 7.01/10

Diploma in Electronics and Communication Engineering VMR Polytechnic

i 05/2018 - 07/2021

▼ CGPA: 7.5/10

Board of Secondary Education SSC - Class X ASSISI ENGLISH MEDIUM SCHOOL

6 04/2018

CGPA: 8.3/10

SKILLS

- 1. Programming Languages: Python (Proficient), Bash, SQL
- Machine Learning: Linear Regression, Logistic Regression, Decision Trees, Random Forest, XGBoost, SVM, K-Means Clustering, KNN, PCA
- 3. Deep Learning: CNNs, RNNs, LSTMs, Transformers
- 4. **Frameworks and Libraries**: TensorFlow, PyTorch, Scikit-learn, FastAPI, Flask, Streamlit
- 5. MLOps: MLFlow, Docker, GitHub Actions, CI/CD Pipelines
- 6. **Data Engineering**: pandas, NumPy, Feature Engineering, ETL Pipelines
- 7. Databases: MySQL, MongoDB
- 8. Cloud Platforms: AWS (EC2, ECR, S3)
- 9. Model Optimization: Hyperparameter Tuning, Quantization
- 10. Version Control: Git, DVC
- 11. Os: Windows, Linux (Ubuntu)

PROJECTS

Diamond Price Prediction

Tech: Python, MLFlow, Flask, Docker, CI/CD, AWS

- Developed a machine learning model to predict diamond prices based on features like **carat**, **cut**, **color**, **clarity**.
- Used AWS S3 Bucket for dataset storage and retrieval.
- Conducted Exploratory Data Analysis (EDA), including Univariate and Bivariate analysis, to understand relationships.
- Automated MLOps pipeline with stages for Data Ingestion, Validation, Transformation, Model Training, Evaluation and Prediction Pipeline for Model Serving using Flask App.
- Set up a DAGsHub Registry for MLFlow Experiment Tracking and Model Versioning.
- Deployed the app on AWS EC2 via ECR for production use.
- CodeWithCharan/Diamond-Price-Prediction

Text Summarizer App

Tech: Python, NLP, Docker, CI/CD, AWS

- Developed a Text Summarization App that will summarize any text, dialogue, conversation or article.
- MLOps pipeline: Data Ingestion, Validation, Transformation, Model Training, and Evaluation.
- Automated CI/CD pipeline using GitHub Actions & Docker.
- Deployed the app on AWS EC2 via ECR for production use.
- CodeWithCharan/Text-Summarizer

ACHIEVEMENTS

- 1. Earned 5 stars in Python on HackerRank
- 2. Earned 5 stars in SQL on HackerRank

ARTICLES & PUBLICATIONS

- 1. Evolution of Language Representation Techniques: A Journey from BoW to GPT Read Article
- 2. Hacking the System Design: How Search Engines Understand and Deliver Results Read Article

CERTIFICATES

- 1. Python: HackerRank
- 2. **SQL:** HackerRank
- 3. Problem Solving: HackerRank
- 4. Machine Learning with Python: freecodecamp
- 5. Generative Al: Udemy

LINKS

- leetcode.com/u/CodeWithCharan
- hackerrank.com/CodeWithCharan
- linktr.ee/CodeWithCharan
- codewithcharan.github.io/My-Portfolio