## Sri Charan Thoutam

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CodeWithCharan

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#### **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 AI-powered solutions leveraging Generative AI techniques to address real-world challenges.
- Project Lead: Led a 6-member team to develop GenAl-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 via Hugging Face's Stable Diffusion API.
- Diamond Price Prediction with MLOps: Link to project summary
- Electric Vehicle Data Analysis: Link to analysis insights
- Boa Al: Link to project overview

#### **EDUCATION**

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

**1** 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

**=** 04/2018

CGPA: 8.3/10

### **SKILLS**

- 1. Programming Languages: Python (Proficient), Bash, SQL
- 2. **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, Redis
- 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.
- Implemented an automated MLOps pipeline with stages for Data Ingestion, Validation, Transformation, Model Training, and Evaluation.
- Set up a DAGsHub Registry for MLFlow Experiment Tracking and Model Versioning.
- Built a **Prediction Pipeline** for Model Serving using **Flask App**.
- Automated CI/CD pipeline using GitHub Actions.
- Deployed the app on AWS EC2 via ECR for production use.
- **G** 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 Streamlit App on AWS EC2 via ECR.
- CodeWithCharan/Text-Summarizer

## **ACHIEVEMENTS**

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

### **ARTICLES & PUBLICATIONS**

- 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