

# Sri Charan Thoutam

@ thoutamsricharan@gmail.com

✉ Hyderabad, India

🔗 CodeWithCharan

☎ +91 8897523345

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## INTERNSHIPS

### Data Science & GenAI Intern

#### Innomatics Research Labs

📅 Sep 2024 – Nov 2024

- **Project Lead:** Led a 6-member team to develop GenAI-powered Discord bots for text, image, and video generation.
- Successfully developed two bots:
  - **Boa:** A conversational text-generation bot utilizing **LangChain**, **Google Gemini API**, and **ChromaDB** for context-aware responses using **RAG** techniques.
  - **Kiku:** An advanced bot enabling text extraction from images using **PyTesseract** and text-to-image generation via Hugging Face's **Stable Diffusion API**.
- Designed and structured a collaborative **Discord server** with dedicated channels for **meetings**, **updates**, **GitHub logs** (via webhooks), and **voice discussions** to streamline team communication.
- Planned future expansions of the bot to include **video generation** and **advanced multimodal** capabilities.
- 📄 [LinkedIn post](#)

## EDUCATION

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

#### Ganapathy Engineering College

📅 09/2021 - 07/2024 📍 CGPA: 7.01/10

### Diploma in Electronics and Communication Engineering

#### VMR Polytechnic

📅 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
2. **Generative AI:** LangChain, Hugging Face, OpenAI GPT API, Google Gemini API, Prompt Engineering, Fine-Tuning Models, VectorDB, RAG (Retrieval-Augmented Generation)
3. **Natural Language Processing (NLP):** Text Generation, Sentiment Analysis, Summarization, OCR (PyTesseract), Embedding Models
4. **Multimodal AI:** Text-to-Image (Stable Diffusion, DALL-E), Image-to-Text (OCR)
5. **Frameworks:** PyTorch, TensorFlow, FastAPI, Flask, Streamlit, Scikit-learn
6. **MLOps:** Docker, GitHub Actions, MLFlow, CI/CD Pipelines
7. **Databases:** MySQL, MongoDB, ChromaDB
8. **Cloud:** AWS (EC2, ECR, S3)
9. **Version Control:** Git, DVC
10. **OS:** Windows, Linux

## 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.
- 📄 [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

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 AI:** Udemy

## LINKS

- 📄 [leetcode.com/u/CodeWithCharan](#)
- 📄 [hackerrank.com/CodeWithCharan](#)
- 🌐 [linktr.ee/CodeWithCharan](#)
- 🌐 [codewithcharan.github.io/My-Portfolio](#)