# Sri Charan Thoutam

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#### Education

## Ganapathy Engineering College

Sept 2021 - July 2024

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

- o GPA: 7.01/10.0
- o Coursework: Data Structures, Algorithms, Machine Learning, Deep Learning

# **Technologies**

Languages: Python (3 years), SQL (2 years), Bash (3 years)

Technologies: AWS(EC2, ECR, S3, Lambda), LangChain, LlamaIndex, ChromaDB, RAG(Retrieval-Augmented Generation), Docker, Hugging Face, TensorFlow, PyTorch, FastAPI, Flask, Streamlit, Git

# Experience

#### **Data Science Intern**

Remote

Sep 2024 – Dec 2024

Innomatics Research Labs

- Developed and deployed machine learning models for diamond price prediction, achieving 98% accuracy.
- Implemented MLOps workflows with MLFlow and Docker for scalable model deployment.
- Led a 6-member team to develop GenAI-powered Discord bots for text and image generation.
- Authored and published two in-depth Medium articles, "Hacking the System Design" and "Evolution of Language Representation Techniques," covering advanced concepts like search engine architectures, distance metrics, language vectorization techniques, and embeddings.

## **Projects**

#### Boa - A GenAI-Powered Discord Bot

Boa-Demo 🗹

Boa is a GenAI-powered Discord bot designed to interact with users in a friendly and intelligent manner.
It uses LangChain, Google Gemini API, and ChromaDB to store and retrieve past conversations, providing contextual and thoughtful responses. The bot uses Retrieval-Augmented Generation (RAG) to generate accurate answers and stores user interactions for future reference.

Vision-AI GitHub ☑

 Vision-AI is designed to assist visually impaired individuals in understanding their surroundings. It provides real-time scene analysis, obstacle detection, text-to-speech conversion, and personalized task assistance.

#### Chat With Multiple PDFs

GitHub 🗹

Built a Streamlit-based application enabling users to upload multiple PDFs and interact with their content through natural language queries, leveraging LangChain, Google Generative AI (Gemini) and FAISS (Facebook AI Similarity Search) for accurate, context-based question answering.

### Publications & Achievements

**Evolution of Language Representation Techniques** 

Read Article 🗹

A Journey from BoW to GPT

Nov 5, 2024

Hacking the System Design

Read Article Z Oct 28, 2024

How Search Engines Understand and Deliver Results

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Earned 5 stars in both Python and SQL on HackerRank

HackerRank Profile 🗹

Solved 90+ problems on LeetCode

LeetCode Profile