

Sri Charan Thoutam

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Education

Ganapathy Engineering College Sept 2021 - July 2024
B.Tech in Computer Science and Engineering (AI & ML)

- GPA: 7.01/10.0
- **Coursework:** DSA, Machine Learning, Data Visualization, Database Management Systems

Skills

Languages: Python (3 years), SQL (2 years), Bash (3 years)
Technologies: AWS(EC2, ECR, S3, Lambda), LangChain, MLFlow, Docker, TensorFlow, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Plotly, Power BI, FastAPI, Flask, Streamlit, Git, DVC
Data Analysis: Data Cleaning, Exploratory Data Analysis (EDA), Statistical Analysis, Feature Engineering

Experience

Data Science Intern Remote
[Innomatics Research Labs](#) Sep 2024 – Dec 2024

- Developed and deployed machine learning models for diamond price prediction, achieving 98% accuracy.
- Conducted Exploratory Data Analysis (EDA) to uncover trends, detect outliers, and analyze relationships within datasets.
- 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


Diamond Price Prediction (Internship Project) - [GitHub](#) Oct 2024 - Oct 2024


- Developed a machine learning model to predict diamond prices based on features like carat, cut, color and clarity. Automated MLOps pipeline with stages for Data Ingestion, Validation, Transformation, Model Training, Evaluation and Prediction. Deployed the app on AWS EC2 for production use.


Pharmaceutical Insight Retrieval System (Personal Project) - [GitHub](#) Jan 2025 - Jan 2025

- Developed an advanced Retrieval-Augmented Generation (RAG) pipeline with similarity search for precise query responses. It is designed to help users gain meaningful insights from research papers and documents in the pharmaceutical domain. It uses LangChain, Google Gemini, ChromaDB and Streamlit.

Publications & Achievements

Evolution of Language Representation Techniques [Read Article](#) 
A Journey from BoW to GPT Nov 5, 2024

Hacking the System Design [Read Article](#) 
How Search Engines Understand and Deliver Results Oct 28, 2024

Earned 5 stars in both Python and SQL on HackerRank [HackerRank Profile](#) 

Solved 120+ problems on LeetCode [LeetCode Profile](#) 