Srikar Veluvali

Hyderabad, Telangana, India
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Education

Keshav Memorial Institute of Technology **Nov. 2022 – May 2026**
Bachelor of Technology in Information Technology ***CGPA:*** *9.78*

Sri Chaitanya **Apr. 2020 – Jul 2022**
Class 11 & 12 ***Percentage:*** *98.4%*

Experience

Defence Research Development Laboratory - DRDO **Jun 2024 – Oct 2024**
HPC Software Engineering Intern *Hyderabad, Telangana*

- Optimized **CUDA** programs for **Computational Fluid Dynamics** simulations, reducing GPU processing time by **25.93%**, **cutting missile flow simulations from 30 days to 22 days.**
- Led high-performance computing solutions, accelerating data processing and **improving Reynold's Equations simulation accuracy**.
- Worked with engineers to optimize parallel computing algorithms, significantly boosting execution efficiency.

Technical Skills

Programming Languages: C/C++, Python, Java, JavaScript, Go (Golang)
Web Development: HTML, CSS, Node.js, React.js, Express.js, Flask, Next.js, Bootstrap, Tailwind
Databases & Data Management: MySQL, MongoDB, Chroma
Tools & Platforms: Git, GitHub, Docker, Postman, Tableau, Unix/Linux, Google Colab, StarUML
Relevant Coursework: Software Engineering, Computer Networks, Operating Systems, Parallel Programming, Database Management Systems

Projects

Astor AI: A Chatbot for Medical Queries | *LLMs, Generative AI, React.js, Flask, Fine-tuning* **GitHub — Demo Video**

- Developed a medical chatbot using the **Llama 3 model**, **fine-tuned for medical data**, and implemented **Retrieval Augmented Generation (RAG)** methods, improving response accuracy by 30%, reducing average query response time by 25%, and making it scalable on local computers and achieving minimal latency.
- This model has also achieved **400+ downloads on Huggingface**.

Heart Health Web Application | *MERN, Machine Learning, Data Science, Flask* **GitHub — Demo Video**

- Developed an innovative MERN stack web application with Machine Learning for heart disease prediction and personalized diet/exercise plans and integrated with Google's Gemini AI for diet suggestions and a map-based system to locate nearby cardiologists.
- **Nominated for People's Choice Award** among 15,000 projects in the **Google Gemini API Developer Competition.**

Named Entity Recognition with OCR & BERT | *Machine Learning, Data Science, Fine-tuning, LLMs* **GitHub**

- Developed an **Optical Character Recognition (OCR)** system combined with a **fine-tuned BERT model for entity extraction**. The objective is to extract text from images and classify entities within that text, allowing for efficient data extraction from visual sources.
- The project leverages OCR for text extraction from images and uses BERT for classifying the extracted text into predefined entities. This two-step process enables high accuracy (42%) and efficiency in recognizing and categorizing information.

Awards and Certificates

- Solved **over 630 problems on Leetcode** and hold a **2-star rating** on **Codechef** for competitive programming.
- Consistently achieved the highest academic standing as the **Branch Topper across all the semesters.**
- Awarded for **Prompt design and developing generative AI apps by Google** in May 2024.
- Awarded **Silver Medal (Top 5%) in Python for Data Science** from **IIT Madras**, scoring 84%
- Achieved **Silver Medal (Top 5%) in Programming in Java** from **IIT Kharagpur**, scoring 78%
- Completed a **Deep Learning using Python course at IIT Hyderabad** in February 2023.