

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: 9.75

Sri Chaitanya Junior College

Apr. 2020 – Jul 2022

Class 12

Percentage: 98.4%

EXPERIENCE

Defence Research Development Laboratory - DRDO

Jun 2024 – Sep 2024

CUDA Programming Intern

Hyderabad, Telangana

- Contributed to the development and optimization of CUDA programs for Computational Fluid Dynamics (CFD) simulations, **achieving a 25% reduction in processing time** and enhancing computational efficiency on an NVIDIA RTX 4080 GPU.
- Collaborated with a multidisciplinary team of engineers to implement high-performance computing solutions, resulting in a significant improvement in overall simulation speed and accuracy.

TECHNICAL SKILLS

Languages: C/C++ , Python, Java, JavaScript, Go (Golang)

Databases: MySQL, MongoDB

Web Development: HTML, CSS, Node.js, React.js, Express.js, Flask, Bootstrap, Tailwind, Next.js

Tools: Git, GitHub, Docker, Tableau, Postman, Unix/Linux, Windows NT, VS Code, Visual Studio, Google Colab, StarUML

Coursework: Data Science, Data analysis, Machine Learning, Object Oriented Programming, Data structures and Algorithms, Software Engineering, Computer Networks, Parallel Programming, Operating Systems, Database Management Systems, Full Stack Development

PROJECTS

OCR Entity Extraction with BERT | NLP, Machine Learning, Data Science, Fine-tuning, LLMs

Sep 2024

- 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 PaddleOCR 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.

Astor AI: A Chatbot for Medical Queries | LLMs, Generative AI, React.js, Flask

Mar 2024—Jul 2024

- 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 also achieved **400+ downloads on Huggingface**.

Heart Health Web Application | MERN, Machine Learning, Data Science, Flask

Oct 2023—Feb 2024

- 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.
- Managed to achieve 20% increase in prediction accuracy and helped users find cardiologists 50% faster (reducing average search time from 10 minutes to 5 minutes).
- Nominated for People's Choice Award** among 15,000 projects in the **Google Gemini API Developer Competition**.

AWARDS AND CERTIFICATES

- Solved **over 530 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 semesters**.
- Awarded for **Prompt design and developing generative AI apps by Google** in May 2024.
- Recognized as a topper (Top 5%) with a **Silver Medal in Python for Data Science from IIT Madras**, scoring 84%, from January 2024 to February 2024.
- Recognized as a topper (Top 5%) with a **Silver Medal in Programming in Java from IIT Kharagpur**, scoring 78%, from January 2024 to April 2024.
- Completed a **Deep Learning using Python course at IIT Hyderabad** in February 2023.