# Ram Dhavileswarapu

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## Objective

As a recent graduate, I am seeking a role which allows me to continue learning and perfecting my skills to contribute to the growth of the company.

## Internship

- **TiHAN(IITH) [🌐]** *12 2023 - 03 2024*
  *Intern* Hyderabad, India

  **Aim of the Project :-** To enable the custom-made MAV to **'navigate autonomously in indoor'** environments using **'SLAM on NVIDIA Jetson'** devices.

  **Technologies Utilized :-** GitHub, Docker and ROS

  **OS :-** Linux (Ubuntu)

  **Programming Language :-** Python

  ▷ Developed a **GPU-enabled** docker container for ORBSLAM3.

  ▷ Developed **ROS nodes for communication** between drone and local system.

## Education

| Institution | Location | Duration | Degree | GPA |
|---|---|---|---|---|
| MVGR College of Engineering | Vizianagaram, India | 08/2020 – 04/2024 | B.Tech | CGPA: 8.43/10 |
| Aditya Jr. College | Mandapeta, India | 06/2018 – 03/2020 | Pre-University Education | CGPA: 9.40/10 |
| S.V.N | Angara, India | 03/2018 | Secondary Education | GPA: 10.0/10 |

## Projects

◦ **Project A: [Maternal Health Risk Classification]** *08 2024 – 09 2024*
*Tools: [pandas, numpy, matplotlib, scikit-learn, GitHub]*

▷ Performed **Exploratory Data Analysis (EDA)** and data preprocessing to clean and transform raw data.

▷ Implemented and compared multiple classification models, including **Logistic Regression, SVC, Random Forest, CatBoost, K-Nearest Neighbors, XGBoost, and AdaBoost**.

▷ **Achieved 83% accuracy** by optimizing features and fine-tuning hyperparameters.

▷ Developed end-to-end **ML pipelines** for efficient training, evaluation, inference, and scalability.

▷ Built a **Flask-based web application** to serve the model via REST API.

▷ Implemented a **CI/CD pipeline using GitHub Actions** for automated testing and deployment.

▷ Containerized and deployed the application on **AWS Cloud** for real-time inference and accessibility.

◦ **Project B: [RAG with AI Agent]** *08 2024 – 09 2024*
*Tools: [LangChain, LangGraph, Groq, gemma, Python]*

▷ **Optimized response time** by using RAG as a semantic cache: repeated or similar queries are answered from a vector database, bypassing the LLM.

▷ **Reduced LLM API calls** and costs by invoking language models only when no relevant cached answer exists.

▷ **Augmented capabilities with web search (Tavily)** to handle dynamic, research-oriented queries and ensure the knowledge base stays current.

▷ **Built with LangChain, vector databases** allowing modularity and scalability in real-world conversational AI applications.

## Technical Skills

◦ **Programming Languages:** Python, C++, CUDA
◦ **Frameworks:** Scikit-Learn, Pytorch, LangChain, HuggingFace, OpenCV, Kafka
◦ **Tools:** Git, Docker
◦ **Databases :** MySQL, MongoDB
◦ **Others:** Machine Learning, Deep Learning, Computer Vision, Data Structures and Algorithms

## Skills

- Problem-Solving, Communincation, Time-management, Collaboration

## Achievements and Activities

- **4-star in Python** *[🌐]*
  *Hackerrank*
- **Solved 200+ coding problems on GeeksforGeeks** *[</>]*
  *GeeksforGeeks*
- **Attended AI Workshop** *[🌐]*
  *JNTUK*

## Certifications

- **Robotics - Coursera**
- **GPU Programming - Coursera**
- **Complete Machine Learning, NLP Bootcamp MLOPS and Deployment - Udemy** *08 2024*
- **Reinforcement Learning - Coursera**

## Additional Information

**Languages:** English (Fluent), Telugu (Native)
**Interests:** Playing Chess and Cricket, Listening Music