N Sudharshan Reddy

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Education

Ramaiah Institute of Technology — Bangalore
B.E in Computer Science and Engineering (AI & ML) — *2021 – 2025*
- Current CGPA: 9/10
- Coursework: Data Structures, Algorithms, Software Engineering, DBMS, Computer Networks, Operating Systems, OOPS with C++, Java, Machine Learning, Deep Learning

Work Experience

Unisys Campus Research Program — Oct 2023 – March 2024
ML Research Intern — *Remote*
- Implemented a solution for **document retrieval**, ensuring user queries were directed to the most relevant documents across multiple domains (HR, Finance) and facilitating precise **answer extraction**.
- Focused on improving query accuracy and document relevance, achieving **80 % accuracy** in identifying the correct document across multiple sources.
- Utilized **LangChain** for query processing, HuggingFace models for **NLP** , **Sentence Transformers**, and **Document Clustering** for document classification and selection.

Yubi (Fintech company) — May 2023 – Oct 2023
ML Intern — *Remote*
- Developed an **NLP**-based solution for fetching accurate answers from documents based on user queries and eliminating manual search efforts.
- Automated query generation with a **Q&A T5 Model**, speeding up testing by 60 % and created a custom dataset with 8,000 entries and 500 queries.
- Made use of LLM-powered **RAG** pipeline integrated with a **Vector Database** to enhance retrieval accuracy and efficiency.

Projects

File Distribution System
- Developed a **File Distribution System** using **TCP protocol** to efficiently manage file transfers.
- Integrated a **Group Management System** allowing admins to create and manage groups seamlessly.
- Implemented **Multicasting** in two UDP phases: **with ACK** and **without ACK** for enhanced performance.
- Supported simultaneous distribution of **multiple files and folders** with ensured **data integrity** in the TCP-based system.

Network Intrusion Detection System
- Implemented a system to detect **DDoS attacks** on servers.
- Collected and analyzed network traffic using **PyShark** and **CICFlowmeter**.
- Trained an **XGBoost model** on the **CICIDS2017 dataset** (70K rows, 82 columns) for classifying network flows.
- Enabled **real-time classification** of network traffic every **3 seconds**.

MSRIT Udbhav'24 Fest Website
- Created the **UI for the MSRIT Udbhav Fest'24** using **HTML**, **CSS**, and **JavaScript**.
- Designed and populated sections for **event details**, **registration**, and **coordinator contacts**.

Skills

- **Languages:** C/C++, Python, Java
- **Skills:** NLP, Machine Learning, PyTorch, Hugging Face, Git, Flask, Streamlit
- **Databases:** MySQL, Weaviate
- **IDEs:** VS Code, Kaggle Notebook, Google Colab

Achievements

- **Second Price** in Energy Transition Hackathon organized by **Mercuria, Amphora, and Curl Tech**
- **Second Runner-up** for System Programming Theme in **TallyCodebrewers'24** organized by Tally Solutions.
- Developed an **HR and finance query dataset** (1,382 rows) with **5,851 downloads** on HuggingFace.
- Secured **First Place** twice in AI hackathons at **BMSCE Phase-Shift '22 and '23**.