# Moreddy Sankeerth Reddy

Hyderabad, Telangana

**८** +91-9553213706 **■** sankeerthreddy2001@gmail.com **m** <u>MSR2201</u> **7** <u>MSR2201</u>

#### SUMMARY

Results-driven AI Engineer with a strong foundation in machine learning, deep learning, and artificial intelligence, backed by an M.Tech in Integrated Software Engineering from Vellore Institute of Technology. Proficient in developing end-to-end AI solutions, including data pre-processing, model development, and production deployment, using Python, LangChain, TensorFlow, and PyTorch. Demonstrated expertise in building advanced AI systems, including Retrieval-Augmented Generation (RAG) workflows, fine-tuning Large Language Models (LLMs), and optimizing model performance for real-world applications. Proven ability to implement innovative solutions through collaborative teamwork and a passion to remain at the forefront of AI advancements. Committed to leveraging technical and analytical skills to solve complex challenges in dynamic IT/ITES environments.

#### **EDUCATION**

## Vellore Institute of technology

 $06\ 2019 - 06\ 2024$ 

Mtech Integrated Software engineering - 8.68

Chennai, India

#### TECHNICAL SKILLS

Programming Languages: Java, Python, SQL, R

Web technologies: HTML5, CSS3
Operating Systems: Windows, LINUX

**Technical Skills:** Software Development Life Cycle, Machine learning(ML), Artificial Intelligence(AI), Data Analytics, Prompt engineering, Deep learning frameworks, Pytorch, HuggingFace Hub, Scikit-Learn, MLX

Developer Tools: VS Code, Colab, Intellij Idea Ultimate, Netbeans

Cloud Technologies: AWS, Azure, GitHub, Git

### **EXPERIENCE**

AI Research Intern 08 2024 – Present

Five Minutes Location

• Developed and fine-tuned Large Language Models (LLMs) using cutting-edge AI research techniques and frameworks.

- Collaborated on various AI projects, integrating advanced natural language processing capabilities into real-world applications.
- Enhanced model performance through optimization techniques and continuous evaluation with domain-specific datasets.
- Contributed to the deployment and scaling of LLM-based solutions, improving user interaction and providing innovative features for clients.

#### PROJECTS

## Advanced RAG System | Natural Language Processing

 $03\ 2024$ 

- Engineered a comprehensive RAG system with **Contextual**, **Graph-based**, and **Agentic** variants for enhanced document retrieval.
- Implemented intelligent web crawling and PDF processing with LangChain and FAISS vector storage.
- Developed an interactive **Streamlit** interface achieving 90% query accuracy using hybrid embedding models.

#### LLM Finetuning Pipeline | MLX and Deep Learning

02 2024

- Developed an automated MLX-based finetuning system using **LoRA** and **PEFT** techniques for efficient model adaptation.
- Created seamless conversion pipeline from HuggingFace models to **GGUF** format with **95**% automation.
- Implemented robust data processing with CSV to JSONL conversion and automated train-validation splits.

#### Cyclone Track Prediction | Deep learning and Data analytics

 $03\ 2024$ 

- Utilized Python to create an Automatic Cyclone Track Prediction System.
- Enhanced prediction accuracy with Hybrid CNN-LSTM and CNN-GRU techniques.
- Achieved 95% accuracy in tracking cyclones, surpassing conventional models.

# Cyclone Eye Detection | Computer vision and YOLO

12 2023

- Implemented advanced computer vision techniques using the YOLO object detection model.
- Innovatively expanded the dataset through a novel computer vision method.
- Achieved an impressive 89% precision in detecting cyclone eyes.

# EXTRACURRICULAR

# National Service Scheme

 $\mathbf{08}\ \mathbf{2020} - \mathbf{12}\ \mathbf{2022}$ 

<u>Head</u>

Chennai

- Led an 8-member team in organizing and conducting online and offline events.
- Facilitated interviews with prominent national figures to inspire students.
- Successfully executed multiple events under my guidance.

### **CONFERENCE**

Object Translation based Image Augmentation enabled Cyclone Eye Detection System for Tropical Cyclones in India - uPCOMING 12 2024