

# Murala Leela Kartheek

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## SUMMARY

Enthusiastic and adaptable Computer Science and Engineering (Honors) student with strong development and problem-solving skills. Experienced in building scalable applications and smart systems using Java, JavaScript, Python, and C++. Proficient in front-end frameworks (React.js, Angular) and backend tools (Node.js, Express.js), with a keen interest in AI integration, cloud computing, and full-stack development. Completed multiple virtual internships and hands-on projects in AI, web, Android, and cloud technologies. Recognized for leadership, quick learning, and passion for building impactful tech solutions.

## EDUCATION

- Bachelor of Technology in Computer Science and Engineering(Honors)** 2022-26  
*Velagapudi Ramakrishna Siddhartha Engineering College* CGPA: 8.86

## TECHNICAL SKILLS AND INTERESTS

- Programming Languages:** Java, C/C++, Python, HTML5, CSS3, JavaScript, SQL
- Frameworks/Libraries:** React.js, Angular.js, Node.js, Express.js
- Tools & IDEs:** VS Code, PyCharm, Eclipse, Android Studio, Git, GitHub
- Databases:** MySQL, MongoDB, Oracle
- Operating Systems:** Windows, Linux
- Relevant Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, DBMS, Computer Networks, Software Engineering
- Soft Skills:** Problem Solving, Critical Thinking, Communication, Self-Learning, Leadership, Adaptability

## PROJECTS

- A Deep Learning Framework for Detecting Deforestation in the Western Ghats** Jan 2025 - May 2025  
*Team Lead - Mini Project*
  - Pioneered a deep learning model utilizing Sentinel-2 satellite imagery for deforestation mapping in the Western Ghats, achieving 92% accuracy in identifying affected areas using U-Net and ResNet50 architectures.
  - Built a real-time Streamlit app for deforestation probability mapping, enabling satellite image uploads and supporting environmental decision-making.
  - Technology Used: Python, TensorFlow/Keras, OpenCV, Streamlit, CNNs, RNNs, GIS tools.
- IoT-Based Real-Time Wrong-Way Vehicle Detection System** Aug 2024 - Dec 2024  
*Team Lead - EPICS Project*
  - Led the development of a smart traffic monitoring system using YOLOv4 and SORT to detect vehicles moving in the wrong direction on one-way roads
  - Integrated Raspberry Pi 4, ESP32-CAM, and ThingSpeak API for real-time alerts, remote monitoring, and automated notifications (buzzer and email)
  - Technologies Used: Python, OpenCV, NumPy, RPi.GPIO, ThingSpeak, IoT hardware
- Bank Management System (JDBC Application)** May 2024  
*Personal Project*
  - Developed a Java-based bank management system with a Swing GUI frontend for user-friendly interaction to insert, update, delete, and display customer records.
  - Connected the application to an Oracle database using JDBC for real-time data operations and management.
  - Technology Used : Java, Swing, JDBC, Oracle Database, SQL

## EXPERIENCE

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- **Python Full Stack Developer Virtual Internship (Cohort 10)** *Oct – Dec 2024*  
Online  
*AICTE–Eduskills*
  - Learned front-end technologies including HTML, CSS, and JavaScript to build responsive UIs.
  - Gained hands-on experience in developing back-end applications using Python and Django.
  - Built and integrated RESTful APIs and performed CRUD operations using MySQL.
  - Understood full-stack deployment using platforms like Heroku and containerization basics with Docker.
- **Google AI-ML Virtual Internship (Cohort 8)** *Apr – June 2024*  
Online  
*AICTE–Eduskills*
  - Gained understanding of key concepts in Artificial Intelligence and Machine Learning.
  - Worked with supervised and unsupervised learning algorithms using Python.
  - Built and trained basic ML models using TensorFlow and Google Colab.
- **Google Android Developer Virtual Internship (Cohort 7)** *Jan – Mar 2024*  
Online  
*AICTE–Eduskills*
  - Acquired core skills in building Android applications using Java and Android Studio.
  - Developed basic Android apps with UI components, activities, and intent-based navigation.
  - Worked with local data storage using Shared Preferences and SQLite.

## CERTIFICATIONS

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- **Core Java** – Coursera
- **React Basics** – Meta (Coursera)
- **Crash Course on Python** – Google (Coursera)
- **Introduction to Software Engineering** – IBM (Coursera)
- **Associate Cloud Engineer** – Google
- **CCNA: Introduction to Networks** – Cisco
- **NDG Linux Essentials** – Cisco

## PUBLICATIONS

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- **IoT-Based Opposite Way Detection System For One-Way Roads** – July 2025  
*16th International Conference on Computing, Communication and Networking Technologies, IIT Indore*
  - Published and virtually presented research on an IoT-based system to detect vehicles traveling in the wrong direction on one-way roads.
  - Designed and implemented real-time detection and alert mechanisms using sensors and microcontrollers to enhance traffic safety.

## POSITIONS OF RESPONSIBILITY

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- **Event Co-Coordinator** National Level AI Hackathon - SAHE, Vijayawada *Feb 2025*
  - Co-coordinated a large-scale AI hackathon with participation from 300 teams nationwide.
  - Assisted in managing event promotion and participant engagement to maximize turnout and enthusiasm.
  - Facilitated effective communication and coordination among participants, judges, and organizing committee to ensure smooth event execution
- **Treasurer** IEEE Computer Society - CSE, VRSEC *Feb 2025 - May 2026*
  - Managed financial transactions and budget planning for the society.
  - Ensured timely dues collection and maintained accurate financial records.
- **Class Representative** VRSEC, CSE *July 2024 - May 2025*
  - Acted as a liaison between students and faculty to communicate academic concerns and feedback
  - Assisted in resolving student issues and facilitating a positive classroom environment
- **Volunteer** TCS Off-Campus Placements, VRSEC *April 2024*
  - Supported the smooth coordination and management of TCS off-campus placement drive attended by approximately 1,500 candidates
  - Provided support to ensure smooth conduct of interviews by managing logistics and addressing on-site queries
  - Coordinated between candidates and interviewers to facilitate an efficient interview experience