ABHIRAM UNNAM

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EDUCATION

UNIVERSITY OF CINCINNATI **Expected JAN 2025**
Cincinnati, Ohio, United States
Master of Science in Information Technology
CGPA : 4.00/4.00

SRM UNIVERSITY **JUN 2019- AUG 2023**
Guntur, Andhra Pradesh, India
Bachelor of Technology, Electronics and communication
Specialization in VLSI and Embedded systems
CGPA: 8.72/10

SKILLS

Programming languages
C, C++, Python, SQL, HTML.

Operating systems and Software Tools
Linux OS, Windows, MacOS, Xilinx vivado, Cadence Virtuoso, Proteus, EDA, CST studio.

EXPERIENCE

APSSDC / Internet of things INTERN **MAY 2021 – JUL 2021**

- Designed various real-time projects using Proteus and Keil simulation software, encompassing traffic signal lights, temperature sensors, and IR sensors.
- Developed a plant watering system employing Servo motors, Moisture sensors, and Arduinos.

PROJECTS

Automated lung size estimation in chest x-ray images using deep learning.

- Created a project for lung image segmentation, generating masked lung X-ray images and calculating lung size from masks.
- Utilized a dataset for training Deep learning and Machine learning models to make predictions on lung health status (disease or healthy) and achieved an accuracy rate of 97% with the model.

Voting Based Classification System for Malaria Parasite Detection - Research Publication Springer Conference 2022

- Collaborated with 3 people and published a research paper on image processing techniques to detect malaria parasites in blood samples.
- Applied three models: Euler's number, object detection through contour analysis, and region identification.
- Implemented a voting process based on results to determine presence of a parasite in a blood sample. This model has shown an accuracy of 90.2% in detecting infected lung images.

Automatic vehicle beam control system.

- Designed and built a vehicle-installed system for automatic adjustment of headlights to low beam in response to oncoming vehicle headlight beams.
- Utilized an IR sensor as a primary component and simulated project in Proteus, Keil, and Tinkercad.

Research project on Energy efficient routing protocols for wireless sensor networks.

- Conducted a comprehensive study and analysis of clustering algorithms for wireless sensor networks, with a focus on enhancing energy utilization efficiency.
- Evaluated routing algorithms including LEACH (Low Energy Adaptive Clustering Hierarchy) and PEGASIS (Power-Efficient Gathering in Sensor Information Systems).
- Investigated partitioning of networks into cluster groups, optimizing data transmission efficiency among nodes.

CERTIFICATIONS

- Data Structures by GeeksforGeeks **AUG 2022**
- Problem Solving(Basic) by HackerRank. **AUG 2021**
- Python data structures by Sololearn **JUL 2021**
- Python Basics by Hackerrank. **AUG 2021**