

# Gunasekaran Mahalingam

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## PROFESSIONAL SUMMARY

Motivated Python developer with a strong foundation in core Python, problem-solving, and logical thinking. Passionate about learning full stack development and building real-world applications while continuously improving technical skills and software development practices.

## EDUCATION

### University College of Engineering, Arni

B.E in Electronics and Communication Engineering | 2022 - 2025 | CGPA: 7.9

### Dr. MGR Polytechnical College, Irumbedu

Diploma in Mechanical Engineering | 2019-2021 | Percentage: 89%

## INTERNSHIP

### Embedded and IoT Intern | Galwin Technology, Trichirapalli

May 2024 – June 2024

- Completed a hands-on internship focused on IoT system development and sensor integration.
- Worked with Arduino and NodeMCU to interface temperature, humidity, and soil moisture sensors.
- Used platforms like ThingSpeak and Blynk for real-time data monitoring and visualization.
- Developed a mini-project on smart bin level detection using IoT technologies.

## PROJECTS

### 1. Traffic Sign Recognition using CNN

- Developed a Convolutional Neural Network (CNN) model to classify Indian traffic signs with high accuracy.
- Integrated the model into a GUI using Gradio and implemented voice output using gTTS. Pre-processed image datasets, trained the model, and evaluated performance using validation metrics.
- Technologies: Python, TensorFlow/Keras, Gradio, gTTS

### 2. Smart Bin Level Detection System

- Built an ultrasonic sensor-based system to monitor garbage bin levels in real-time.
- Used NodeMCU to transmit bin data to a cloud dashboard (ThingSpeak) for remote monitoring.
- Technologies: NodeMCU, Ultrasonic Sensor, ThingSpeak, IoT

## TECHNICAL SKILLS

- Languages: Python, HTML, CSS, Java Script
- Database: MySQL, MongoDB
- Version Control: Git & GitHub

## LANGUAGE

- English
- Tamil