

# Thamaraimanalan M

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## EDUCATION

### Government College of Technology

*Bachelor of Electronics and Communication Engineering*

*CGPA: 7.8*

Coimbatore, IN

*Expected Graduation: June 2026*

## EXPERIENCE

### Project Intern

Feb 2025 – Jun 2025

*FOSSEE, IIT Bombay*

*Remote*

- Developing a cross-platform GUI for OpenModelica using Qt(with Python bindings).
- Collaborating with the FOSSEE team to improve OpenModelica's usability and performance.
- Enhanced the Qt/Python GUI's functionality and performance to improve user experience for OpenModelica's specific simulation and model selection processes.

## PROJECTS

### Smart Traffic Management [GitHub](#)

Oct 2024 – Present

- Developing a prototype system for traffic junctions to detect emergency vehicles and prioritize their movement.
- Implementing traffic flow control based on real-time traffic density analysis.
- Utilized deep learning (YOLO) for ambulance detection implemented in Hailo 8L and automated signal control using Raspberry Pi and sensor integration.
- Developed a prototype application using QML with a Python backend to allow authorities to manually control traffic signals.

### Project.Eye [GitHub](#)

Feb 2025 – Present

- Built an AI-powered assistive system using Python, Raspberry Pi, Moondream VLM, and Piper TTS for visually impaired.
- Enabled real-time image capture, processing, and audio feedback via a headset.

### DroidDebload [GitHub](#)

Feb 2025 – Mar 2025

- Simplified Android device management by building a QML/Python application to remove system applications without root access.

### WiFi Jammer (Python CLI Script) [GitHub](#)

Jan 2025 – Present

- Developed an interactive Python command-line interface (CLI) script to simulate Wi-Fi deauthentication attacks for educational purposes.

## CERTIFICATIONS & ACHIEVEMENTS

### Qt-Athon 2024 — Global Coding Competition

2024

*Secured 3rd place for a desktop application developed with Qt Quick (QML) and C++.*

[View Recognition](#)

### TechForSociety Hackathon by Siemens and Nasscom foundations

Jan - Mar

*Shortlisted for innovative smart traffic management system.*

[Project Info](#)

## TECHNICAL SKILLS

**Languages:** C++ (Beginner, actively learning), Python, Shell Scripting

**Embedded Systems:** Raspberry Pi, IoT, Hailo, Edge AI

**Frameworks:** Qt (QML, Widgets)

**Concepts:** Object-Oriented Programming (OOP), Cross-Platform GUI Development

**Developer Tools:** Git, GitHub, VS Code, Qt Creator

**Libraries:** PyQt6, PySide6, OpenCV (Beginner)

**Operating system:** Linux

## SOFT SKILLS

- Collaborative Teamwork
- Effective Communication
- Project Management