

# Thamaraimanalan M

9500797380 | <https://thamaraimanalan.tech/> | <https://www.linkedin.com/in/mtm-x> | <https://github.com/mtm-x>

## EDUCATION

### Government College of Technology

*Bachelor of Electronics and Communication Engineering*

*CGPA: 7.8*

Coimbatore, IN

*Oct 2023 – Jun 2026*

## EXPERIENCE

### Project Intern

Feb 2025 – Present

*FOSSEE, IIT Bombay*

*Remote*

- Developing the GUI for OpenModelica using Qt and Python
- Enhancing user experience and functionality for OpenModelica simulation tools
- Collaborating with the FOSSEE team to improve OpenModelica's usability and performance
- Working on performance improvements, debugging, and integrating new features to support complex system modeling.

## 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
- Developed a web-based dashboard for users to monitor live traffic conditions and review historical data trends.
- Utilized deep learning (YOLO) for ambulance detection and automated signal control using Raspberry Pi and sensor integration.

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

Feb 2025 – Present

- Built an AI-powered assistive system using Python, Raspberry Pi, Moondream VLM, and Piper TTS for blind users.
- Enabled real-time image capture, processing, and audio feedback via a headset.
- Optimized AI models for efficient performance on Raspberry Pi.

## CERTIFICATIONS & ACHIEVEMENTS

### Qt-Athon 2024

2024

*Secured 3rd place in the global-level coding competition and developed Application.*

[View Recognition](#)

### TechForSociety Hackathon by Siemens and Nasscom foundations

Jan - Mar

*Shortlisted for innovative smart traffic management system*

[Project Info](#)

### Naan Mudhalvan Hackathon

Oct 2024

*Secured 2nd place in the Naan Mudhalvan Hackathon conducted by TANSAM.*

[Project Info](#)

### Best Paper Award

Mar 2024

*National Conference on Advanced Computing and Communication Systems, ECE, GCT.*

### Ethical Hacking

2024

*Successfully completed the NPTEL course on Ethical Hacking.*

## TECHNICAL SKILLS

**Languages:** Python, Shell Scripting, QML

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

**Frameworks:** Qt

**Developer Tools:** Git, VS Code, GitHub, Firebase Studio, Platform tools

**Libraries:** PyQt, PySide6, OpenCV, Ultralytics

**Operating system:** Linux

## SOFT SKILLS

- Teamwork
- Communication