

Thamaraimanalan M

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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](#)

e-Yantra Robotics Competition – Warehouse Drone

2024

Participated in Stage 1

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,

Libraries: PyQt, PySide6, OpenCV, Ultralytics

Operating system: Linux

SOFT SKILLS

- Teamwork
- Communication