THOMAS K VARGHESE

TRAINEE ENGINEER

+91-9383484317 | thomaskv415@gmail.com | Edathua, Kerala, India |
www.linkedin.com/in/thomas-k-varghese-3a28bb253/ |
https://github.com/tkv-04

ABOUT ME

I am an engineering student proficient in Python, IoT, Embedded Systems, and Cybersecurity. I love creating practical solutions using technologies like Raspberry Pi, ESP32, and Firebase. My active areas include Python-based Automation and Machine Learning projects. The areas of interest that attract me the most are problem-solving, investigating new technologies, and creating end-to-end systems that combine software and hardware.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, C
- **Frontend:** ReactJS, HTML5, CSS3, JavaScript
- **Backend:** Python (Flask – REST APIs), Firebase
- **Databases:** Firebase, MySQL
- **Tools & Platforms:** Linux, Docker, Git
- **Domains:** Full-Stack Development, IoT Systems, Edge AI, Cybersecurity

INTERNSHIP

Intern | **Mibiz Cyber Forensic Laboratory**| Trivandrum January 2024

- Performed disk imaging, data recovery, and mobile forensic analysis using industry tools.
- Analyzed digital evidence and documented forensic findings.

IoT Development Intern | **PramAna AyurTech Solutions**| Cherthala June 2025 – Sept 2025

- Developed IoT-based healthcare devices focused on clinical outcome measurement.
- Contributed to hardware–software integration and prototype development.

PROJECTS

1. **Football and Basketball Scoreboard**
    - Implemented real-time data updates using Firebase backend.
    - Built responsive UI using ReactJS.
    - **Technical Stack:** ReactJS, Firebase.
    - **GitHub:** *https://github.com/tkv-04/Football-ScoreBoard*
2. **Email Analyzer**
    - Developed an email tracking system to analyze the pathway an email takes through various nodes.
    - Implemented techniques to verify authenticity and detect anomalies in email headers.
    - **Technical Stack:** Python.
    - **GitHub:** *https://github.com/tkv-04/Email_Analyzer_python*

3. **Smart IoT Based Lemon Classification and Sorting System**

   - Designed and developed an automated hardware system based on ESP32, Arduino Uno, and servo motors to sort and classify lemons according to pre-defined rules.
   - Built a real-time web dashboard to visualize and track classification data for analysis and monitoring of system performance.
   - **Technical Stack:** ReactJS, Firebase, Embedded C.
   - **GitHub:** *https://github.com/tkv-04/lemon-classifier*

4. **Facial Expression Based Pain Classification**

   - Deployed ML inference pipeline with optimized performance on Raspberry Pi.
   - **Technical Stack:** Python, Machine Learning, TensorFlow**.**
   - **GitHub:** *https://github.com/tkv-04/facial_pain_Classifier_v1*

EDUCATION

Bachelor of Technology (B. Tech) - Computer Science & Engineering
(IoT & Cybersecurity, including Blockchain Technology) |
Providence College of Engineering, Chengannur 2022-2026

ACCOMPLISHMENTS

- First Prize - QuizTopper Competition (Providence College of Engineering)
- First Prize – Project Exhibition Competition Cognizance 2023 (Providence College of Engineering)
- Second Prize – Capture the Flag (CTF) (Nakshathra 2025, Saintgits College of Engineering)

CERTIFICATES

- Introduction to Internet of Things (Cisco)
- Ethical Hacking (NPTEL, IIT Kharagpur)
- Introduction to Cyber Security (Cisco)
- Tata Cybersecurity Security Analyst Job Simulation on Forage - August 2025

WORKSHOPS/MEETUPS/ADDON

- Successful Completion of Google Cloud Study Jams
- Hands on Workshop on Internet of Things (IoT)
- Workshop on Introduction Machine Learning and ML Programming
- Workshop on Cyber Security
- Workshop on Web Development