Nishan Dananjaya

Electrical and Electronics Engineer

CONTACT

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Maho,Kurunegala
LinkedIn
Github
Portfolio

SKILLS

Technical:

Circuit Design, PCB Layout
Power Systems, Renewable Energy
Embedded Systems, IoT

Programming:

Python, C/C++, MATLAB, javascript
Verilog

Tools:

AutoCAD, Altium Designer, STM32 cube IDE
Vivado, Quartus prime

LANGUAGES

Sinhala - Native
English - Fluent

CERTIFICATIONS

Fundamentals of Digital system design - UOM
Machine Learning specialization - Deeplearning.ai
Object oriented programming - Udemy

PROFESSIONAL SUMMARY

A motivated final-year undergraduate specializing in embedded systems, control engineering, and IoT. Skilled in both hardware and software development with hands-on experience in microcontrollers (STM32, ESP32), PCB design, and real-time debugging systems. Passionate about combining research with practical applications to build scalable engineering solutions.

WORK EXPERIENCE

Intern Electrical and Electronics Engineer North Sails PVT LTD.
2023-2024

- Designed real time defect detection protype Computer vision model using YOLOV5 and Open CV
- Developed a humidity control room for yarn storage to ensure optimal conditions.
- Designed a motor control circuit using the (DOL) starter method for the humidity control room.
- Engineered various types of molds for sail production, optimizing efficiency and product durability.

Intern Electronics Engineer SLT Mobitel
2024 - 2025

- Created a program to utilize Tuya API and Control Smart home devices.
- Debugged and resolved the buzzer issue related to the Parkease project.
- Created a firmware to make API requests by sending images with Parkease server and get the response using ESP32

EDUCATION

B.Sc.(Hons.) Electrical and Electronic Engineering
Southeasetern University of Sri Lanka — **2016 - 2018**

- GPA: 3.82/4.0
- Web master of the Electrical and Electronic Engineering Society

G.C.E. A/L - Physical Science stream
Central college Anuradhapura — **2017-2019**

- Grade: AAB
- Z Score: 1.8051

KEY PROJECTS

XCP based live debugging system for embedded vehicle chargers
Embedded C, Python, STM32, Raspberry pi,Websockets — **2025**

- Real-time monitoring system vehicle charger parameters.
- Parameter tuning functionality.
- Dedicated and secured websocket tunneling service through ngork.

Tuya IoT python
Python, Tuya API, IoT — **2024-2025**

- Utilize Tuya API to control Tuya supported four gang switch.
- Implemented functions of the 4 gang switch like on off and timer in the software created.
- Seamless control over the internet.

Automatic defects detecting system using YOLO V5
YOLO V5, YOLO V8, Pytorch, Python — **2023**

- Developed a system to detect the defects of the tapes that has been used to make sails.
- Updated the system to save the defected tape images with annotations.

Traffic light controller
System verilog — **2024**

- Developed a traffic light controller module using system verilog which has specific functions.