Mahadevan Syam

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Website

Education

Vellore Institute of Technology **2021 - 2025**
B. Tech, Electronics and Communication Engineering *CGPA: 8.89/10.0*

Sarvodaya Vidyalaya **2021**
ICSE Board *12th: 92%*

Skills

Programming Languages: Python and its technologies, Embedded C, Java(Beginner), HTML/CSS(Beginner)
Hardware Descriptive Languages: VHDL, Verilog
CAD Tools: libero SOC (VHDL), Fusion 360 electronics, MatLab, TinkerCad, Spice simulation tools(Cadence Virtuoso, Pspice, LTSpice)
Languages: English, Malayalam, Hindi

Certifications

The Complete Python Programming bootcamp by Dr. Angela Yu: Udemy
C/C++ Programming: Udemy (Ongoing)
ASIC Designing using Cadence Tools: VIT, Vellore
Internet of Things: VIT, Vellore

Projects and Research Paper

IoT based automation in ESL Classroom | *IoT, Report Writing, Research* **July 2022 - Nov. 2022**

- Under the guidance of Prof. Dr. M. Thenmozhi, a research was conducted a group of 5 members in which the problems and benefits related with introduction of IoT devices in english as a secondary language classroom was documented and published.

Iot based RFID attendance system | *Mini project* **July 2023**

- Created an RFID Based attendace calculating device using ESP32 Microcontroller.
- The collected data was updated with the requirements into a google sheets which was then displayed onto a local website

Professional Experience

Vikram Sarabhai Space Center (ISRO) **Novemeber 2023**
Project Intern *Trivandrum, Kerala*

- Project Name: FPGA Based LVDT Signal Conditioning
- Developed a programable and synthesizable sine wave generator and an ADC interface using VHDL for a custom FPGA to improve the response performance of a particular flight module
- Analysed and developed analog circuits for the filtering and rectification of the output received from the LVDT sensor to be fed to the FPGA for further calculations
- Skills Used: FPGA interfacing, VHDL, Circuit Analysis

iOrbit Digital Technologies **October 2023**
Embedded systems Intern *Trivandrum, Kerala*

- Project Name: Next-Gen Fiber Mat for comprehensive patient care: Respiration, Position and Activity
- Assisted in designing and developing the embedded C script for the collection of data from a fibre optic mat
- Assisted in designing and developing the python scripts used to smoothen,filter and analysis of the received data for further processing
- Understand the analog circuitry behind the product for further optimizations
- Skills Used: Circuit Design, Python, Embedded C, 3D Modelling

CDAC Thiruvananthapuram **August 2023 - September 2023**
Project Intern *Trivandrum, Kerala*

- Project Name: IoT Based Remote Health Monitoring System
- Design and develop python scripts to automate the collection of data from multiple sensors through a microprocessor
- Manage a MySQL database for storage of the collected data
- Deploy a local server and create an entry level website using HTML, CSS and PHP for the data to be displayed
- Get an insight into the advanced concepts of IoT development technologies such as FLASK, RESTful API and WebSockets.
- Skills Used: Python, HTML/CSS, MySQL, PHP

Volunteer Experience

IEEE SPS VIT **March 2022 - Present**

Senior Core Member *Vellore*

- Organiser and Speaker at an hardware Hackathon conducted during Yantra 2023
- Organiser of multiple events including class sessions, hackathons, workshops and ideathons
- Skills Used: Leadership, Teamwork, Communication, Management

JOL Energy **August 2023 - October 2023**

Electronics Intern *Remote*

- Startup under VIT TBI
- Helped design schematics for an EV Charger
- Skills Used: Circuit Design, PCB Design

Ayuda NGO **March 2023 - Present**

Core Member *Remote*

- Helped promote the club and its events through digital media in the form of posters and graphical designs
- Skills Used: Vector Graphics, Adobe illustrator

Extra-Curricular Work

Grade 5 keyboard player | *Trinity College, London* —