



# Shangavelan M

EMBEDDED SOFTWARE ENGINEER

## Profile

Passionate embedded systems enthusiast with 3 months of industrial internship experience in bsp development, yocto build system and the android build system.

## Employment History

### assosiate embedded software intern, Adlink Technologies, Chennai

JULY 2023 – OCTOBER 2023

month 1 : worked with yocto project to build linux os for ipi-smarc rb5 company specific board (and documented this process). Also developed testing software (pin loop) for on board spi, gpio and can interface.

month 2 : Was part of a team of two in porting and developing android os to lec mtk 1200 board.

month 3 : performed firmware and peripheral testing on the boards mentioned above and documented them as per customer requirements.

### AI internship, smartinternz, chennai

JUNE 2023 – JUNE 2023

Used random forest classification to classify toxic comments and created a basic web app that demonstrates the same.

## Projects

### Blind Man stick using 8051, asm and embedded c

- Makes use of Ultrasonic sensor and a motor to simulate vibration.

### 8051 based signal generator , embedded c

- Use of various algorithms to generate sine wave, square wave and triangular wave. With added UI features.

### IOT based Smart keychain (node MCU), arduino

- Remote location tracking of small portable IOT keychain

### IOT based baby monitoring system (node MCU), Embedded c(ESP-IDF)

Live baby video feed, wetness detector, android app, Baby crying detector, (using mic), smart swing control.

### Remote monitoring and feeding of fishes, Arduino

- Use of camera, RFID, a monitoring phone app to keep track of fishes and their activities.

- link : [https://www.youtube.com/watch?v=j4UJXMk\\_sYw&t=22s](https://www.youtube.com/watch?v=j4UJXMk_sYw&t=22s)

### Detection of Arrythmia from ECG, Matlab

- Use of sequential signal processing algorithms to filter the heartbeat from ecg and determine if the particular ecg sample has arrythmia.

### Design and testing of small wearable flexible antenna, HFSS

## Details

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india

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## Skills

C, Embedded c

java

linux

Android Studio

## Education

### Btech in ECE, VIT , Chennai

APRIL 2020 — APRIL 2024

cgpa : 8.7/10

achieved a S grade in a total of 9 courses including microprocessor circuits course,Analog electronic system,Digital signal processing,etc.

### 12th, Chellapan vidhya Mandir,CBSE, Karaikudi

JUNE 2018 — APRIL 2019

percentage : 90%

### 10th, SRV,state board, trichy

APRIL 2017 — MARCH 2018

percentage : 96%

### high school, Montfort , yercaud

JUNE 2010 — MARCH 2017

## Extra-curricular activities

Nokia 5g circuitathon, Nokia, chennai

Quantum computing workshop, school of advanced daata science vit

NETSIM HACKATHON, Tetcos

IOT hackathon using STM32, School of electronics vit(SENSE)



