

Akhil Joseph

Embedded Engineer

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akhiltj.me



Summary

Passionate Embedded System and Software/Web Developer with experience in development over 3 years. The passion drove me to Join in a startup during final year at college. With dedication I learned the necessary skills by myself to complete many consumer and enterprise applications for clients across the world. I am looking forward to be part of a wonderful team and use my skills to build some great products or services that creates my mark in the world.

Education

Secondary (X) 2009 - 2010
L.B.S.M.H.S.S
Kerala State Board

Higher Secondary Education (XII) 2010 - 2012
St.antonny HSS Moorkanad

B.Tech Electronics & Communication Engineering 2012 - 2016
S.N.M.I.M.T Malinkara

Deploma in DIGITAL FABRICATION 2019
[FABLAB Kochi](#)

Work experience

Lead Embedded Engineer 2015 - 2019
[Technorip Innovations Pvt Ltd](#)

- Developed low power tracking solution for high value asset management solutions using Quectel Open CPU Hardware : Quectel M66/MC60, Quectel L86.
- Developed I2C & UART driver Library for SSD1306 OLED display and GT511c3 respectively. Also TCP socket communication part were done in Quectel Open CPU Architecture (Nucleus RTOS) for fingerprint based HR management solution.
- Designed and developed low cost & low power cellular tracking device with upto 30 days backup for consignment tracking using Open CPU (Nucleus RTOS) and successfully completed the pilot run on April 2018.
- Developed I2C & UART driver Library for SSD1306 OLED display and GT511c3 respectively. Was done in Quectel Open CPU Architecture (Nucleus RTOS) for fingerprint-based HR management solution
- Designed and assembled PCBs for GSM/GPRS Tracker and fingerprint-based HR management solution as DFM (MakerVillage Robotic Assembly line)

Skills

Languages

████████████████████
C,C++,Embedded C, Python, JAVA

Hardware

████████████████████
MSP430,GPS,GSM,Quectel
OpenCPU,Arduino,Raspberry Pi, XMEGA

PCB Design

████████████████████
Proteus, Eagle

3D-Design

████████████████████
Autodesk INVENTOR

Databases

████████████████████
Firebase, MySQL

Server

████████████████████
Apache HTTP Server

WEB Development

████████████████████
HTML, Django

Freelance Embedded Engineer

2019 - 2 months

INSPIREIN Technologies

- PIC18F26K22 Based GPS-GPRS tracker (AIS140 standard)
- Developed I2C library for MPU6050 , ADC,UART, was done in XMEGA A1U Xplained Pro (AtmelStudio)

Freelance Embedded Solutions

2016 - 8 months

Yescollages Infotech Pvt . Ltd.

- Marline Based 3D-Printer
 - Auto bed leveling
 - Filament run-out sensor
 - Power-off Auto resume(Beta)

Freelance Embedded Solutions

2019 - 1 month

GreenHopper Pvt.Ltd

- Fingerprint based Lock for GATE

Freelance Embedded Solutions

2016 - 1 month

Mechanical HOD SNMIMT

- IOT based Data collection system for PHD thesis (ocean tide Analatics)
 - ESP8266, DHT11, SR04
 - Google sheet

Hardware Experience

- E45-TTL-100 LORA
- HTTP,MQTT, TCP/UDP Socket
- Quectel M66 (GSM/GPRS), Quectel MC60 (GSM/GPRS/GNSS), Quectel L80/86(GPS),Quectel M95(GSM/GPRS)
- MSP432401R,MSP430G2553
- TM4C123
- Arduino, AT89C51, 8085, 8086
- PIC16F877A, PIC18F452,PIC18F26K22,PIC16F628A,PIC18F2550
- MediaTek LinkIt ONE, SIM900, Raspberry pi, Orange Pi, Qualcomm DragonBoard 410C, Ai Thinker A6
- XMEGA A1U Xplained Pro
- CC11350 (Sub 1 GHz & BLE multi Stack)
- CC2500 (2.4 GHz ISM Band)
- CC2650MODA
- MKS GEN U1.4 (3D-printer)
- UltiBoard (3D-printer)
- BH-MSD-4.5A Micro Step driver
- ESP32, ESP01, ESP8266, NodeMCU(WiFi)

Tools & IDEs

Eclipse, Keil MDK, Eagle,GIT, Autodesk INVENTOR, Proteus 8.0, FAB 3000 , MPLAB X,Atmel Studio,XC8

REFERENCES

Vipin V.P, ECE HOD, SNMIMT Email ID: vpn_v@yahoo.com