Summary

I am an ambitious person who is interested in the Embedded Systems field in all its aspects automotive, smart homes, and other different industries. I worked on many freelancing projects besides related fields like Analog Electronics, Digital Design, computer Arch and Machine Learning.

Info

Full Name: Mohamed Osama Ahmed

Date of Birth: 21 December 1988

Nationality: Egypt

Marital Status: Single

Location: Itsa, Fayoum, Egypt

Phone Number: 01025729762

Mail: hammadosama1998@gmail.com

Work

See my complete work history on LinkedIn.

Embedded Software Engineer at Valeo

November 2021 - Present
(1 year)

Embedded Software Engineer Freelacner on Khamsat website

Jun 2019 - Jun 2021
(2 years)

Education

Fayoum University (FU), Egypt

Bachelor's Degree in Computer Engineering, 2016-2021

Training and courses

May 2022 **Debugging Embedded Systems**

At Valeo

Sept 2021 **Testing Academy**

At Valeo

Jun 2021 **EMBEDDED SYSTEMS DIPLOMA**

At IMT School

April 2021 **ARM Architecture Course**

Under the supervision of Engineer Mohamed Tarek

April 2021 **AUTOSAR Software Design Course**

Under the supervision of Engineer Mohamed Tarek

Jul 2021 **Advanced C Programming**

On LinkedIn

Jul 2021 **C PROGRAMMING FOR EMBEDDED APPLICATIONS**

On LinkedIn

Jul 2021 **Debugging C Code**

On LinkedIn

Embedded Projects

FORD PROJECT HOST AND SOC

This is a huge project its main function to run some algorithms (line detection, pedisterians detection, obstacle detection and others) according to output analysis of the cameras and ultrasonics, I worked on many topics in Host (in C language) as I was feature owner of algorithm manager and FAPM (module repsonsible for automatic parking) I was repsonsible for debugging, change request, check static analysis using klockwork, unit test using vector cast and smoke test (regression test) using canoe and vsi6 simulation. In SoC (in c++ language) I learned besides what I get from Host How to use LDRA for unit test, programming muticore ecu, using server client pattern, Det tool for diagnostics and many other skills like documentaion, reviewing, analyse the issue and estimate time for solving this issue (there is no source code as this work belongs to company)

DIO AND PORT AUTOSAR DRIVER FOR TM4C MICRO-CONTROLLERS

The main function is toggling Led using Button as an input with specific requirements building all layers MCAL, ECUAL, Services layer contains Scheduler and Application with System Logic.

SMART SAFETY JACKET FOR INFANTS

It is a system for ensuring safety for small babies within the home when the mother/guardian is busy with their stuff. Guarantee different detections like fire, gas leakage, temperature, and the movement of the baby. The proposed system is to make some improvements Global system for mobile communication (GSM) and receiver include the parent's mobile phone which is assigned for monitoring the surrounding conditions of the baby.

CABLE FAULT DETECTOR

The objective of this project is to determine the distance of underground cable fault from base station in cm using an Atmega32 microcontroller. The underground cabling system is a common practice followed in many urban areas

FISHBOWL ESP TIVAC IOT

This is an IOT device that controls the temperature and DC motor based on the user settings using an ARM Cortex M4 based processor which is in TM4C123GH6PM Microcontroller Tiva C series and ESP8266 WIFI Module to connect to the Internet using C programming language for TM4C Micro, Arduino for ESP Module with HTML, JavaScript, CSS and firebase for Web.

MIPS PROCESSOR

It is an implementation of Single Cycle MIPS Processor in System Verilog. It can execute assembly R-type and I-type instructions like (add, sub, sll, or, mult, div and more).

Skills

Embedded C	Embedded Systems Concepts	Micro Controllers Interfacing
Communication Protocols	RTOS	ARM Architecture
AUTOSAR	Bootloader	CAN
LIN	Debugging	Testing
Klockwork static analysis	LDRA Unit Test	VectorCast Unit Test
Vector Canoe	cmake	IOT
Flowcharts	Simulation	Pseudocodes
Git	Scripting	Desktop Apps using C#
C++	SQL Server DB	Documentaion

Contact Info

Let's Keep In Touch!