

Ahmed Hassan

Embedded Software Engineer

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📍 Al-haram, Giza, Egypt.

EXPERIENCE

Sep, 2021 - Present **Embedded Software Engineer**
Valeo, Egypt.

- Junior Embedded Software Engineer for Valeo Egypt Company working in Automotive Field.

EDUCATION

Sep, 2016 – Aug, 2021 **Bachelor's Degree**
Faculty of Engineering, Fayoum University, Egypt.

- Bachelor of Computer and Systems Engineering.

PERSONAL PROJECTS

- **OTA Programmer.**
 - Implement OTA Programmer for STM32 Microcontroller using NodeMCU Board.
 - It used to flash hex file on MCU using website wirelessly with the bootloader flashed in the STM32 Flash Memory.
- **OS Scheduler.**
 - Implement OS Scheduler to schedule one-shot or periodic tasks in C program for microcontrollers.
 - The user configures the number of tasks then add each task with its first call time and period time.
- **AUTOSAR Drivers.**
 - Implementation of AUTOSAR Port and DIO Drivers for TM4C Micro-controller
- **MIPS Processor.**
 - Implementation of Single Cycle MIPS Processor in System Verilog.
 - The processor can execute assembly R-type and I-type instructions like (add, sub, sll, or, mult, div and more).

TECHNICAL SKILLS

- **Programming Languages.**
C, C++, Embedded C, Java, Kotlin, Python and Dart.
- **Microcontrollers Interfacing**
(AVR, STM, TIVA-C and PIC).
- **Sensors Interfacing** (PIR, IR, Ultrasonic and more).
- **Communication Protocols**
(SPI, I2C, UART, CAN, LIN, USB).
- **IoT** with NodeMCU Board (ESP8266).
- **RTOS** (FreeRTOS) and building simple Scheduler based on Time Triggered Embedded Systems.
- **AUTOSAR** Layered Architecture and Device Drivers.
- **Problem Solving** with Algorithms and Data Structures.
- **Lab Tools** such debuggers and oscilloscopes.
- **Mobile and Web Applications Development.**
Develop Mobile Applications with Flutter Cross Platform and Web Applications with HTML, CSS, JS.