

Mostafa Mohamed Ibrahim

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Military Status: Completed.

Objective

Seeking a challenging role in the embedded systems domain where my passion for programming and insatiable curiosity for learning can drive innovation. Committed to leveraging my skills in C programming and embedded systems to contribute effectively to dynamic projects and further advance my expertise in this rapidly evolving field.

Internships

- **Embedded Systems**, Egypt Makes Electronics(EME), 4-month Intensive Training Program (ITP), **Information Technology Institute (ITI)** (July 2023 - Nov 2023)
 - Graduation Project: **Car V2C based ADAS system**; system that seamlessly integrates safety and connectivity features for the automotive industry, by combining Advanced Driver Assistance Systems ADAS integrated with AWS cloud with mqtt communication.

Education

- Bachelor Degree in Mechanic Power Engineering, Zagazig University (2020)
Cumulative: Very good
Graduation project :Designing Slaughterhouse Wastewater treatment plant
Grade: Excellent

Work Experiences

- Full time Maintenance Engineer at MISR ElNour (April 2022 - Nov 2022)

Technical skills

- **Programming Languages:** C - Modern C++ - Python
- **Micro controllers:** - Raspberry Pi B3+ - STM stm32 ARM - AVR ATmega23.
- **Linux Administration - Embedded Linux**
- **Embedded systems:** FreeRTOS - computer Architecture - Introduction AUTOSAR
- **Peripherals:** Timer, ADC – Interrupt – NVIC – UART - I2C – SPI – CAN - LIN.
- **Interfacing:** 7seg – LCD – KeyPad – stepper – servo – LDR – EEPROM-DHT11- Ultrasonic
- **AWS Cloud service**
- **Software:** version control "GitHub" - problem solving - waterfall - v-model – Agile – Cloud
- **Debugging skills .**
- **Tools:** STM32CubeIDE - STM link utility, Proteus, Eclipse,, and putty

Courses

- Full Embedded Systems Diploma | Engineer Mohamed Tarik
- Embedded Systems Course | Engineer Ahmed Abd El-Ghafar
- Modern C++ | Code With Mosh
- ISTQB foundation level | Mahara-tech.
- Effective Test Case and Bug Report Writing Techniques (Mahara-tech)
- Introduction to Software Testing Concepts & Techniques (Mahara-tech)
- Introduction to Embedded system with AVR Atmega32 | Udemy
- Testing and Validation

Projects:

ITI Graduation Project | V2C Based ADAS

Bridging Safety and Connectivity

- integrates safety and connectivity features for the automotive industry, by combining Advanced Driver Assistance ADAS ARM-based systems and Raspberry Pi integration with Interfacing with AWS cloud services ,and mQTT communication protocol.

ITI AVR Graduation project | Smart Home System

- The project involves a Master microcontroller system with modes for opening the smart system,changing passwords, and adding users, while utilizing a Slave microcontroller for controlling various functionalities such as temperature-based fan activation, ambient light-based home light control,Bluetooth commands for door and garage control, and voice commands for light control.

Door Locker Security System

- The project involves a master and slave microcontroller with SPI as communication protocol between two microcontrollers . The project aims to control smart systems to unlock doors using passwords with security aspects .

Stop-Watch

- Created a Stopwatch application utilizing two 7-segment displays and two buttons for precise timekeeping, with one button to stop and another to continue timing.

Fan Speed Controller with Temperature

- Developed a Solar Tracking system using LDR sensor, LCD interface, and servo motor control to maximize solar energy harvesting

Distance Measuring System

- Developing a system that measure the distance and display it on LCD

Arduino ITI Welcome Project |Self-Driving RC Car

- The RC car project integrates line tracking, obstacle avoidance, and autonomous capabilities through Bluetooth communication.

Interpersonal skills:

- Thoroughly analyze conditions and reaches independent decisions
- Demonstrate a strong ability to analyze problems
- Display an ability to learn rapidly and adapt quickly to changing situations
- Benefit from all learning situations
- Shows professional concern for the quality of work

Language skills: Arabic - English - German