

MOHAMED ASHRAF FATHY

Fresh Graduate

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PROFILE SUMMARY

Self-Motivated Communications and Electronics Engineer from CIC. A lot of my technical knowledge has been self-taught from the Internet, and it hasn't always been easy. I am in love with the Embedded Systems field. I spent many hours learning from different sources such as online videos, articles, courses, internships. I did many projects with variant microcontrollers such as ATmega32 or Tiva-C for variant kinds of applications. I am seeking a role in the embedded systems field where I can deploy my skills and serve humanity.

EDUCATION

Canadian International College (CIC), ElSheikh Zayed Egypt

Graduation year 2024

Bachelors of Electrical Communications and Electronics Engineering

CGPA: 3.2

Graduation project: FOTA (VSEP)

SKILLS

PROFESSIONAL SKILLS:

Soft Skills

- **Team working** | **Self Learning** | **Leadership** | **Passionate** | **Good Communicator**
- Motivator | **Working under stress** | Self discipline | **Coachable**

Project Management

- **SDLC** | **Agile Scrum & Kanban** | **Git & Github**

Languages:

- Arabic | **English**

TECHNICAL SKILLS:

Programming

- **C** | **Embedded C** | C++

Software

- **S.O.L.I.D Principles** | **MISRA C Rules** | **Data Structure** | **Algorithms**

Industry Knowledge

- **RTOS**

Microcontrollers

- PIC18F2550 | ATmega16 | **ATmega32** | **TM4C123GH6PM** | **STM32F103C8T6**

Development Tools

- **Keil v5** | **Eclipse** | IAR Workbench | MPLAB IDE | **Proteus** | Visual Studio Code

Operating System

- Windows | **Linux**

INTERNSHIPS AND TRAINING

Valeo, Egypt – Embedded Systems Internship

June 2023 – Nov 2023

- Developing vehicle SWC with AUTOSAR
- Debugging SWC using CANoe and WinIDEA
- Unit & Integration testing for the SWC
- Applied SW developing techniques like Agile

NTI, Egypt – DevOps Engineer Scholarship

May 2024 – Present

SIEMENS, Egypt – Embedded Systems Internship

Aug 2022 – Sep 2022

- MCU & CPU Basics
- Memory | Startup File | Linker Script
- Compilation Process | Industrial Tools | Interrupts
- RTOS Fundamentals
- AUTOSAR Layers | AUTOSAR OS Fundamentals | OSEK-VDX

ITIDA, Egypt – Embedded Systems Internship**Aug 2022 – Sep 2022**

- C Fundamentals | Linked List | Queue | Stack | Bubble | Selection | Quick
- MCU Basics | GPIO | Interrupts | Timers
- UART | SPI | I2C | CAN
- Agile | Scrum | Kanban
- Freelancing Webinars

ITIDA, Egypt – Embedded Systems Internship**Nov 2022 – Dec 2022**

- ARM Building Process | ARM Cross Compiler | Linker Script
- ARM Fundamentals | ARM-M Architecture | ARM Exception States
- Tiva-C Basics | GPIO | NVIC | GPTIMERS | ADC | WDT
- RTOS Fundamentals | FreeRTOS | EDF Scheduler Algorithm

IMT School, Egypt – Embedded Systems ARM Course**Sep 2022 – Nov 2022**

- ARM Fundamentals
- AMBA & MCU Vendor Archi
- Interfacing with stm32f103c8t6
- Porting FreeRTOS
- Linker Script | Startup Code | Boot Loaders

IMT School, Egypt – Embedded Systems AVR Course**Jul 2022 – Sep 2022**

- Programming Fundamentals | C Programming | Linked List | Bubble
- Embedded Systems Fundamentals With AVR | Memory
- MCU Basics | GPIO | Interrupts | Timers
- UART | SPI | I2C | LIN | CAN
- Basic RTOS
- ESDLC | Unit | Black Box | White Box | Testing
- Linker Script | Startup Code | Boot Loaders | Batch Script | ICP | ISP | IAP

IEEE VEP, Egypt – Entrepreneurship Training**Jun 2022 – Aug 2022**

- Time Management | Communication Skills | Business Development | Entrepreneur Characteristics

Volunteer Experience

IEEE SB, Egypt – Technical Head**April 2022 – Present**

- **Achievements**
 - Organizing Technical Events | Programming Instructor
 - Created 3D Printer | Organized technical competitions.
 - Embedded Systems Instructor | Instructor in program “Arduino Kids”
 - Guiding | Planning | Motivating

IEEE Xtreme, Egypt – Ambassador**Sep 2022 – Nov 2022****Radix SB, Egypt - Embedded Director****Jan 2023 – Jan 2024**

- Participated in Metal Monsters 2023 robotic car competition. Developed a weaponized robotic car with RC control using STM32F103C8 & nRF24L02+. Designed the PCB for the remote controller.

PROJECTS

- **Arduino Basic Bluetooth Car** 2019
- **Arduino Embedded Smart Home** 2020
- **Arduino 3D Printer** 2020
- **Open Source ANN for Embedded in C** 2022
- **ATmega32 MVP COTS** 2022
- **STM32F103C8T6 (BlueBill) MVP COTS** 2022
- **Custom Automotive Bootloader MVP** 2022
- **TM4C123GH6PM (Tiva C) MVP COTS** 2022
- **STM32F103C8T6 DIO AUTOSAR Driver** 2023
- **Optimized Doubly Linked List Library for Embedded Systems** 2023
- **Autosarzs Template Generator** 2024
- **Custom FOTA for Automotive (VSEP)** 2024