

# Mostafa Mahmoud Helmy Abd-elrahman Swelam

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## PERSONAL INFORMATION

Full Name: Mostafa Mahmoud Helmy Abd-elrahman Swelam.  
Gender: Male.  
Date of Birth: March 23, 1995.  
Age: 28.  
Marital Status: Single.  
Occupation: Testing and Maintenance Engineer at Huawei (since July 2021).  
Military Status: (Completed) Reserve Officer (first lieutenant) at Naval Forces.

## OBJECTIVE

Seeking a company with a reputation and expertise for developing embedded systems software. Looking to gain experience with your company and work together hard to achieve the goals of the company. And to find an opportunity to work as an Embedded software engineer.

## EDUCATIONAL BACKGROUND

- Bachelor of Engineering in Communications and Electronics from Shoubra Faculty of Engineering, Benha University.
- Graduation Date: July 2018.
- Degree: Very Good with Honors.
- Graduation project Degree: Excellent.
- Graduation project: On/Off Control of fountain based on audio spectrum analysis.

## COURSES & TRAINING

- Embedded Systems Diploma from EmbeddedWare Academy (2017).
- ISTQB Foundation level course from EmbeddedWare Academy (2017).
- Mastering embedded systems online diploma (2021) ([learn-in-depth.com](https://www.learn-in-depth.com)).  
Certificate: <https://www.learn-in-depth.com/online-diploma/darshme7@gmail.com>
- Introduction to Real-Time Operating System (RTOS) online from Udemy.  
Certificate: <https://www.udemy.com/certificate/UC-e7c9268b-2519-46fc-97c8-cd55741c2110/>
- Mastering RTOS: Hands on FreeRTOS and STM32Fx with Debugging online from Udemy.  
Certificate: <https://www.udemy.com/certificate/UC-6b392d5d-f336-4c9f-8b3a-275b738736ba/>
- STM32Fx Microcontroller Custom Bootloader Development online from Udemy.  
Certificate: <https://www.udemy.com/certificate/UC-747d4c67-cd91-4cc4-b305-51bfbffa5893/>
- Intern at MOSELAY Media Developments for 1 year as android app developer (2016-2017).
- Summer Training at Petro-gulf Misr for oil industries (2016).

## PROJECTS

- Graduation project: On/Off Control of fountain based on audio spectrum analysis, sampling input audio signal (music) then processing sampled frames using Fourier transform to get the frequency spectrum then using this data to drive pumps to show that spectrum with water.
- Home automation using Arduino, esp-8266 module and smart phone.
- Obstacle avoider robot.
- Race car controlling by smart phone via Bluetooth.
- MCAL and HAL Layer For STM32F103 link:  
MCAL:  
[https://github.com/darshme7/embedded\\_systems\\_online\\_diploma/tree/main/Unit8\\_MCUInterfacing/STM32F103/Drivers/STM32F103C6\\_Drivers](https://github.com/darshme7/embedded_systems_online_diploma/tree/main/Unit8_MCUInterfacing/STM32F103/Drivers/STM32F103C6_Drivers)  
HAL:  
[https://github.com/darshme7/embedded\\_systems\\_online\\_diploma/tree/main/Unit8\\_MCUInterfacing/STM32F103/Drivers/HAL](https://github.com/darshme7/embedded_systems_online_diploma/tree/main/Unit8_MCUInterfacing/STM32F103/Drivers/HAL)
- Integrating FreeRTOS and SEGGER SystemView on STM32F103 to create and debug Real-Time applications.  
Project link: [https://github.com/darshme7/Mastering\\_RTOS](https://github.com/darshme7/Mastering_RTOS)

## WORK EXPERIENCE

- First lieutenant at naval forces (October-2018 to April-2021) with experience in wired/wireless communication systems, electro-visual systems, radars, jamming, LAN/WAN networks and Desktop applications.
- Maintenance Engineer at Huawei (Since July 2021), Work with Spectrum Analyzer, Signal Generators, Oscilloscopes, etc. to test, troubleshoot and localize problems with devices to be repaired.

## SKILLS

### Technical Skills:

- Professional in C programming language.
- Very Good Knowledge of Embedded C and Embedded Software Development.
- Very good understanding of UML diagrams (Requirement, Use case, Activity, Sequence) and State Machine.
- Basic knowledge and understanding of MISRA-C rules
- Very good knowledge of micro-controller and micro-processor architecture and fundamentals.
- Very good knowledge and good experience of micro-controller peripherals and interfacing.
- Worked with various types of microcontrollers and boards like: Atmega, PIC, Arduino, NodeMCU, STM32F103, TivaC TM4C123....
- Hands on experience in debugging and troubleshooting code or hardware issues.
- Very good knowledge of Software Testing, Verification & Validation, QA & QC and Software testing techniques.
- Very Good Knowledge and understanding of RTOS (FreeRTOS & uC/OS-II).
- **Software:** Proteus, Eclipse, CodeBlocks, Matlab, LabVIEW, KEIL uVision, GIT Hub, SEGGER SystemView.

### Language Skills:

Arabic: Mother language.

English: fluent.

### Interpersonal skills:

- Very eager to learn, self-motivated.
- Work under extreme stress.
- Very good problem solving skills.
- Ability to work individually and as a co-operative team member.