Mohanned Abdelazem

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Bio

I am a computer science student at cairo university. I've always been interested in the world of computer science and programming, and I have been actively pursuing this passion since I was in middle school.

EDUCATION

Cairo university

Bachelor of Computer Science and artificial intelligence, Dec 2025

GPA: 3.15

EXPERIENCE

Embedded Systems instructor | Online Student Activity:

- Taught the basics needed to learn embedded systems (computer architecture, C programming and some basic embedded systems principles)
- Taught embedded C and gave interfacing lectures using ATmega32 mcu

CERTIFICATES

Embedded Systems diploma | IMT:

- Completed an intensive Embedded Systems Diploma program with IMT, specializing in C programming, embedded C, and interfacing with Atmega32 (AVR) microcontroller.
- Demonstrated hands-on experience in interfacing various peripheral devices with the Atmega32 microcontroller, including sensors, actuators, and communication modules.
- Gained knowledge of real-time operating systems (RTOS) and their role in managing concurrent tasks and resource allocation in embedded systems.
- Acquired practical skills in software testing basics, including unit testing and integration testing, to ensure the reliability and quality of embedded software.

Internet of things one month training | ITI:

- Database management and quering using PostgreSQL database
- Creating and styling web pages using HTML and CSS
- Implementing interactive features with JS
- Introduction to Internet of Things (IoT)
- Overview of IoT architecture and components
- Understanding MQTT messaging and publish-subscribe model
- Introduction to MOT (Master of things)
- Building IoT applications using MOT platform

Autosar and embedded systems training | Siemens (ongoing until september 30):

• Engaged in an intensive Siemens summer course focused on Autosar and embedded systems, scheduled to conclude on September 30.

PROJECTS

POV display

- Developed a persistence of vision clock using ATmega32
- Worked on the MCAL layer where I wrote the software needed to work on the application layer
- worked on the app layer to make a working POV display

Real-Time clock

- Developed a real-time clock using ATmega32
- Worked on all the three layers to make the clock and made an option to set the time of the clock
- Designed and tested the clock on proteus

Custom printf function

- Collaborated closely with a friend to develop a customized printf function in the C programming language.
- Successfully integrated the custom printf function into the project, enhancing the overall output capabilities.
- Acquired a deeper understanding of the inner workings of printf and improved C programming proficiency through the project.

Skills

- Programming languages: C, C++, Java, HTML, CSS, JavaScript, Python, Embedded C, SQL
- Technologies: RTOS, AVR mcu, Docker, Linux, Git, Django
- Languages: Arabic (native), English (fluent), french (beginner)