Mohamed Ahmed Ali Abdelraheem

Email : mohamedahmed40809@gmail.com

Tel No : +201011091499

Address : 190 Sayda Aisha street, 10th of Ramadan city, Egypt

Academic:

- **Senior 2, Computer Engineering, CHEP,** Faculty of Engineering, Ain Shams University (**CESS**)
- **Expected graduation year**: 2022.
- **Military Status** : Exempted.

Technical skills:

- Programming Languages:
    - C/ Embedded C
    - C++
    - Java
    - Python
    - JavaScript
    - HTML/CSS
- Parallel Programming:
    - CUDA GPU Programming
    - openMP
    - MPI
- Good knowledge of Embedded Systems (ARM and AVR Architectures).
- Real Time Operating System (RTOS)
- AUTOSAR (Currently Study)
- Embedded Linux (Currently Study)
- Good knowledge of Operating Systems and different scheduling techniques.
- Digital design using Hardware Description language VHDL.
- Good knowledge of Computer Vision and Image Processing concepts and techniques.
- Data Structures
- Object Oriented Programming concepts/ Design and analysis techniques
- Software Design Patterns.
- Front-end Angular framework
- Software testing using JUint
- Git/GitHub version control.
- Agile software development concepts and techniques

Courses:

- **MT Embedded systems Diploma** (C, Embedded C, Microcontrollers' architecture and Interfacing and Software Engineering).
- **MT AUTOSAR Software Design - ARM based Course**. (Currently).

Projects:

- **Keystroke Analyzer** using **Tiva™ C Series TM4C123GH6PM** Microcontroller:
  Programming a TM4C123GH6PM kit using c and embedded c to distinguish between who types on the keyboard using UART and Timers by calculating the time of the keystroke and the time between each keystroke to another then feed a machine learning model with the collected data to build a decision tree.

- **Radix Tree** using C++: (Link)
  A tree that stores the entered words as characters sequences each character is a node in the tree that has link to the next character of the word started from the root till the end of the word, if the entered words have similar characters in the initial letters, they will share a part of the tree nodes sequence till the characters become varied, each node which represent a character in the word sequence has frequency variable that increases when a word pass with this sequence, This tree developed to be used in scripting application which will use this tree to expect the word that is being typed from its initial characters.

- **Operating System Scheduling Simulator** using C++:
  Creating a simulator program for different system scheduling techniques to represent how the operating system can handle several processes and implementation of its algorithms like FCFS , SJF and RR.

- **Titanic Passengers Analysis** using Python (Link)
  Using machine learning to create a model that predicts which passengers survived the Titanic shipwreck by training the model with available dataset.

- **Linear Equation Solver Program** using C++
  This program solves N linear equation with M variables in which N is greater than or equal M.

- **College System** using C++ (Link)
  This program makes statistical processes on students' data then modifying and updating this data.

Activities:

- **IHub Ain Shams University Racing Team**
  - HR Recruitment specialist 2017 to 2018
    - Managing the selection process for the team
      - filtering and selecting the applications.

        - Conducting interviews for the applicants.
    - HR Recruitment supervisor 2018 to 2020
        - Training the new HR specialists to conduct a good interview.
    - Marketing specialist 2018 to 2019
        - Managing the team pages on all platforms
        - Making marketing plans for all offline campaigns

Language:

- Arabic (native).
- English (very good).