

# Muhammed Diaa Eldin

3RD YEAR STUDENT · ELECTRONICS AND COMMUNICATION ENGINEERING

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## Objective

Searching for an internship opportunity can fit my education background for the purpose of employing my technical knowledge into real work environment hope to enable me taking significant contribution at the company that I will join and help me to achieve more progress and success.

## Education

### Faculty of Engineering Alexandria University

COMMUNICATION AND ELEACTRONICS ENGINEERING DEPARTMENT

Expected graduation year: 2021

- Elective Courses : Operating systems CS 333
- Accumulative Grade: Very Good

## Work Experience

### VorteX. Co

Alexandria,Egypt

SOFTWARE AND HARDWARE ENGINEER IN VORTEX RAIDERS TEAM

Sep. 2018 - Jul. 2019

- Vortex is an Egyptian company for underwater technologies and marine services Consists of Egyptian students participating in MATE competition
- Team Project is designing and manufacturing ROV- Remotely Operated Vehicle- to perform missions underwater
- Developed the electrical system of the ROV which includes the microcontrollers,cameras, sensors, thrusters and actuators.
- Implemented the software which controls the ROV maneuvering and its sensors readings

### West Delta Electricity Production Company

Alexandria,Egypt

TRAINEE

Jun. 2018 - Jul. 2018

- Worked on the control units of the power station.

### Alexandria University

Alexandria,Egypt

RESEARCH ASSISTANT

Summer 2019

- Worked shortly on a machine learning paper on self-driving cars with Dr. Ahmed Said specifically on sensor fusion using kalman filters between Lidar and Radar sensors.

## Projects

### Door Locker System

GITHUB LINK

C

- Door Locker Security System consists of two ECU's. The first ECU called HMI responsible for interfacing with the user and the second ECU called control ECU which is responsible for the system operations and control. The following drivers Keypad, LCD, DC Motor, UART, Timer, I2C and External EEPROM are implemented.

### Electric Heater

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C

- Implemented Using PIC micro controller that interface With 7 Segment display and Push buttons to control water temp ,External EEPROM ,Heating and Cooling elements and temperature sensor LM35.

### Calculator Using RTOS

GITHUB LINK

C

- Implemented Calculator Application using Free RTOS 10.1 Library.

### Route Planner

GITHUB LINK

C++

- A route planner that plots a path between two points on a map using real map data from the OpenStreetMap.A\*Algorithm is used to get the shortest path from the starting and end point.

### system Monitor

GITHUB LINK

C++

- Project is based on OOP.The system displays the CPU utilization and Os consumed resourses such as the Task manager in Dos or The htop in linux.

### Scheduling Algorithms Simulator

GITHUB LINK

C

- The program reads an input file that lists the information of the processes that need to be scheduled to run on the processor.Then,schedules them according one of two Algorithms user chooses (FCFS-RR).

8088 Microprocessor system on breadboard

SUPERVISED BY: DR.MOHAMED EL-HABROUK

Hardware

- implemented program counter, clock, and memory interface of the  $\mu$ processor as well as connections to other peripherals.

ATM System

GITHUB LINK

Verilog

- Implemented an embedded system to monitor the client queue in front of the tellers.The proposed system, called SBQTM, is to display various information about the status of the queue

Skills

Programming	C , C++ , Matlab , Verilog , VHDL , Python
Embedded Systems	Full Embedded Systems Diploma under supervision of Eng.Mohamed Tarek
Microcontrollers	AVR,PIC,ARM(Tiva C)
Tools	Linux Shell and Bash Scripting, Version control using GIT.
Machine Learning	Python with Numpy and Pandas

Honors & Awards

2018	3rd place, Let’s make a robot competition	Alexandria, Egypt
2019	4th place, MATE ROV local competition	Alexandria, Egypt
2019	4th place, MATE ROV Regional competition	Alexandria, Egypt
2019	3rd place, UMVC Military competition	Alexandria, Egypt

Extracurricular Activity

VLSI-Egypt Alexandria section	Egypt
MARKETING AND MEDIA SPECIALIST	sep. 2017 - Jun. 2019
MOIC juniors	Alexandria,Egypt
LOGISTICIAN	Sep. 2010 - Oct. 2011
VLSI-Egypt Alexandria section	Egypt
TECHNICAL TEAM LEAD	sep. 2019 - Present