

Belal Aboelkher

GITHUB

Linkedin

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Objective

Seeking for internship As Automation software and embedded systems engineer

Education

B.Sc. | COMPUTING AND INFORMATION

Arab Academy for science and technology

- Studying Computer Science and Software Engineering
- Year: 2018-2022
- GPA: 3.3

Experience

Instructor IOT Workshops in College 2019

- I was instructor for workshops to teach to more than 50 students in 24 hrs .

Software Engineer for ROVs at VORTEX Robotics |2018-2020|

- Training the Student on how communicate with ROVs
- Working in commercia ROVs

**Software Embedded systems Intern at DevisionX 2018, Egypt-Cairo-masr algded124 Othman Ibn Affan
1/2018 - 4/2018**

- Responsible for autonomous systems
- Responsibilities included the initial research, planning and managing the project, designing the feature, creating the software with the team

Judge and Technical support for Arab Rov competition

- Responsible for judging participants according to their skills
- Responsible for organizing missions and objectives for teams

Volunteer in IEEE SSCS 2018 -2019 I was volunteer in

- volunteer in activities committee also I was instructor for programming as C/C++ and ROS(Robotics operating systems).

Participator in AIESEC Egypt

- it was member of project to discover MOROCCO with different nationalities as a teams.

Competitions :

I participated in different campuses for problem solving and programming

- **TEAM LEADER | VORTEX-TITANS TEAM | NOV 2017 – DEC 2018**

I was acting as the CEO of Vortex-Titans team who participated in MATE International ROV Competition and UMVC Competition organized by MTC (Military Technical College). Also, my technical role was in the Communications and electrical team in the control ,communication of the ROV

- Achievements:
 - First MATE International ROV competition in USA 2018 and best product demonstration
 - First place in UMVC competition
 - First place in MATE International ROV competition and best team sperate
- **Robo cup junior ,April 2018** -:Our team participated in Line follower track and we got the third place I was embedded systems

Skills & Abilities :

LANGUAGES

Native Arabic, Fluent English

Technical Skills

- Programming technologies :C,C++, Java, php
- Embedded systems : Embedded C,Arduino C ,with AVR Microcontroller with drivers for GPIO , ADC and applications(LCD,key bad) and communication protocols(UART,I2C,SPI) ,Arduino
- ROS(robot operating systems):C++ Nodes,XML,GAZEB,RVIZ,Launch files,URDF,SLAM
- Web programming :JavaScript(AJAX), HTML5/CSS3,php
- Operating systems :Ubuntu
- Image processing : python,opoencv,numpy,matplotlib
- Version Control :GitHub

Interests

Automation, Robotics ,embedded ,Software ,Programming ,Technology .

Projects

- **Under Water Robot (ROV)** , At this technical project I was software and embedded systems engineer in the team ,my responsibilities was designing a system to control the ROV , GUI to display sensors data using(JAVA,Arduino C,Embedded C)
- **Self driving car Software using ROS** , using SLAM with Move_base package ,laser scanner sensor with Gazebo simulation and RVIZ visualization .
- **Smar Home** ,using embedded systems tool and communications protocols as UART ,I2C and ADC .
- **Registration Systems For College** ,using C programming pointers dynamic memory allocation ,structs and files,it was not the best to performance and the memory size but It was a big challenge to create a systems by C programming with menu text (class project) -
Simulation Code Game: using C++ (doubly linked list data structure ,OOP)
- **College Systems** , Using JAVA (OOP concepts)like Inheritance, In encapsulation , association , aggregation ,composition and polymorphism the program was to can register the students and lecturer for courses (class project)

Media Out Reach:

- Egyptian TV show (8:0)

-ROV Competition 2018 first place in USA