

# **Mostafa Othman**

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### **ABOUT ME**

I am a spirited and inquisitive mechatronics engineer, specialized in robotics. My objective is to be a robotics engineering researcher, proposing solutions to overcome long-lasting limits within the industrial field. To fulfill my goal, I have been participating in many robotics competitions to gain more experience in solving robotic problems. And, to gain industrial experience, I have taken many internships in heavy industrial factories. Working on several projects, I excelled in design, modeling, and control. I developed strong communication, organizational and leading skills by being a chairman of the Robotronics student club.

### **EDUCATION AND TRAINING**

## **Master's Degree in Robotics and Computer Vision**

Innopolis University [ 01/09/2020 - Current ]

Address: Kazanss (Russia) https://innopolis.university/en/

Thesis: Teleoperation and Human-Robot Interaction

# **Bachelor's degree Faculty of Engineering, Mechatronics Department**

*Nile University* [ 08/2017 – 08/2020 ]

Address: 6 October city (Egypt)

https://www.nu.edu.eg

Field(s) of study: Mechatronics Engineering Final grade: 3.71 / 4.0 (magna cum laude)

Thesis: Design and Implementation of a Tele-operated VR Environment for controlling a 7-DOF Robotic arm

# **Faculty of Engineering, Mechatronics Department**

Higher Technological Institute [ 09/2014 - 06/2017 ]

Address: 10th of Ramadan city (Egypt)

## **Winter school on Machine Learning in Robotics**

Innopolis University [ 07/12/2020 - 10/12/2020 ]

https://events.innopolis.university/winterschool

It is a four-day intensive course about the powerful combination of Robotics and Machine learning, the main topics was Robot Reinforcement Learning, Developmental Robotics, Evolutionary Robotics, Machine learning for Computer Vision and Deep Generative models.

## **Research centres Bootcamp**

Nile university Research centres (NISC, WINC) [ 08/2018 - 08/2018 ]

Trained for 2 weeks on how to write a paper and was introduced to NISC and WINC research centres knowing more about FPGA and how they work as well as getting hands on experience with Intel EDISON board and developing IOT projects with it on Linux.

## **InnovEgypt**

**Technology Innovation and Entrepreneurship Centre** [ 01/07/2018 – 07/07/2018 ]

More details about the <u>program</u>.

- Innovation and technology management.
- Ideation (INTEL youth enterprise) improving the idea generation.
- Entrepreneurship working on a full project to deliver all these outcomes

## **Maharaty scholarship**

professional Development Foundation [ 02/2015 - 02/2015 ]

## Soft Skills Program:

- Coping with Change, Problem Solving, and Decision Making
- Presentation Skills, Communication Skills, Time Management

### **PROJECTS**

Design and Implementation of a Tele-operated Virtual Reality Environment for controlling a 7-DOF Industrial Robotic Arm in hostile Environment

[ 10/2019 - 07/2020 ]

## **Bachelor Thesis Project**

Designing and building a full system for controlling a robotic arm with Virtual Reality. Implementing a new way to integrate the virtual reality With the Robotic Arm Controlling the arm motion with forward and inverse kinematics using Robotics Operating System (ROS) and trajectory planning. using unity as software that integrates both virtual reality interactions and user interface and robot modeling and simulation with ROS.

(Demo)

### **VET-ENG Erasmus Program**

[ 03/2019 - 09/2019 ]

Designing and modeling of FDM 3D-Printer full assembly with all its Mechanical, Electrical, and Programming parts. The design was a hypercube with a core xy Mechanism which allows better performance.

### **HONOURS AND AWARDS**

### **Top 5 Ranks**

DELL EMC Technologies Envision the Future competition [ 08/2020 ]

A <u>competition</u> for senior undergraduate students from universities in Africa and Mena region that compete for the best project in utilizing technology in Healthcare, Well-being, industrial, or Education sectors. From 227 projects in 14 countries.

We won 5th place for our graduation project and nominated to participate in their annual international conference. The competition focused on the technical part along with the business side and management of the project overall, requiring reports with all details about our vision for the project implementation in real-world and planning for its management.

## https://www.youtube.com/watch?v=oxwMDySRGDk&t=366s&ab\_channel=MOSTAFAOSAMA

### 1st place among all graduation projects in Egypt

IOT and AI Egypt Challenge [ 11/2020 ]

we were qualified and participated in IEEE Global Conference on Artificial Intelligence and Internet of Things (<u>GCAIOT</u>) to present our work. During the <u>competition</u>, we went through intensive technical, business, and innovation training

#### **Bronze medal**

Zewail City University [ 09/2018 ]

### Walking Robots competition

Worked on a full Solidworks motion simulation analysis for the robot doing the task of walking in sand and different environment and across a ramp and manufacturing it.

#### No Pain No Gain

Minesweepers competition [ 08/2018 ]

Designing a 4-wheel mobile robot that detects landmines and draws a map with its coordination in it. Demo

### 2nd place in linear algebra project

6TH Undergraduates Research Forum, Nile university [06/2018]

Making and developing a 3-DOF Robotic arm and connecting it with Matlab driving all theories and equations behind it.

#### 1st place

Robot Challenge Air Race competition [ 09/2016 ]

Made a quadcopter that could trace a line, move over it autonomously. Qualified to the internationals

#### **Bronze Medal**

World Robot Olympiad [ 09/2015 ]

Made a Robot that detects ice thickness, I was the Team Leader.

Qualified for the internationals.

### **WORK EXPERIENCE**

## **Workshop Maintenance Trainee**

**BAVARIAN AUTO GROUP (BMW)** [ 06/2016 - 07/2016 ]

City: cairo
Country: Egypt

Final control of performed service

- Full vehicle inspection
- (Engine & chassis & Transmission) analysis and repair
- body damage assessment and reporting

## **Maunfacturing and Assembly Trainee**

**ARAB AMERICAN VHECHILE (AAV)** [ 06/2017 - 07/2017 ]

City: cairo
Country: Egypt

**IEEP FACTORY** 

learned more about the automation and production lines of cars, all the stages that the car pass through in assembly lines

## **Industrial and manufacturing Trainee**

ARAB ORGANIZATION FOR INDUSTERIALIZATION (AOI) [ 01/08/2016 - 14/08/2016 ]

City: Giza

Country: Egypt

**ENGINE FACTORY** 

learned about maintenance of aircraft and airplanes engines and other parts manufacturing process in fighting planes.

### **VOLUNTEERING**

#### Chairman of Robotronics student club

[HTI, 03/2016 - 09/2017]

Robotronics Student Club Spreading robotics knowledge among youth and junior engineering students.

- Planning and Organizing Robotic Competitions, Courses, Workshops, and Faires.
- Instructor for robotics courses.
- coach for teams in many competitions.

## **DIGITAL SKILLS**

Robot Operating System(ROS) / Solidworks / Git / Python / C# / Autocad / Unity / Microsoft Office / Outlook / Matlab / TenserFlow / Simulink / Proteus / Adams / Ansys / VR / Moveit / ROS/Gazebo / Docker

# **LANGUAGE SKILLS**

Mother tongue(s):

Arabic

Other language(s):

# **English**

LISTENING C1 READING C1 WRITING B2

**SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1**