

Holds a B. Sc. in Mechatronics Engineering and is looking to gain more experience in his field of education.

## **PERSONAL DATA**

Nationality : Egyptian/British  
Gender : Male  
Residence : Heliopolis, Cairo

## **EDUCATION**

: B. Sc. in Mechatronics Engineering, Ain Shams University, 2018  
: Studying for Master degree at Ain Shams University (since Oct. 2018)  
: Secondary Education: Integrated Thebes American College in Cairo, 2012

## **LANGUAGES**

Arabic : Native Language  
English : Very Good

## **COMPUTER SKILLS**

: Windows, MS Office (Word, Excel, Power Point), Internet  
: Matlab  
: V-rep  
: Proteus  
: Many compilers such as Dev, MPLab for pic and Code composer Studio for arm microcontrollers  
: Eagle  
: Autodesk Inventor

## **TRAINING COURSES AND CERTIFICATIONS**

: Training at Nile GAS (Jul. 2017).  
: Training at Bavarian Auto (Jul. 2014).

## **CHRONOLOGICAL EXPERIENCE RECORD**

**Job title** : Engineering Consultant (Freelance)  
**Job Description** : Worked with Shaff Products factory to automate the manufacturing process of producing ultrasound gel and effectively raising the factories overall

efficiency.

- Dates** : From Jan. 2018 till Mar. 2019  
**Employer** : Zeus Products (Founder)  
**Job Description** : Zeus Products was a small business I made. The mission is to provide a wide variety of innovative and creative products that satisfy several different gaps in different markets and their needs. I built a 3D printer and a CNC milling machine to manufacture the products and their PCBs with. My responsibilities include, but are not limited to; designing the products, sourcing all needed parts and tools, figuring out effective and efficient manufacturing techniques, marketing and selling the products, and ongoing market research to understand the market's need and what type of products would be best fit to the market's need and our own capabilities.

#### Skills:

- Fluent in C++ and C.
- Competent in lua and python.
- Great at MATLAB.
- Especially good in embedded programming and embedded system design.
- Electrical and electronic circuit design.
- PCB design.
- Mechanical design; stress analysis, mechanism design, actuator sizing, etc.
- Automatic control, System control (PID, PLC).
- Robotics Design and Implementation.
- Developmental Background.

#### Projects:

- Graduation project: 6 DOF (degree of freedom) collaborative robot arm made in parallel with a case study for L'Oreal's factory in Egypt, also sponsored by FABLAB (Grade: A+).
- Autonomous car with gripper which picks up and new object that appears in an overhanging camera's frame and places the object in a predetermined location.
- An assembly line that sorts cubes and cylinders using machine vision.
- A 3 DOF robotic arm which automatically goes to the location of a nearby circle using machine vision.
- 3D Printer.
- CNC Milling Machine.
- Remotely controlled quadcopter.
- Controlling the temperature of an oven using a PID controller on LABVIEW.
- Robotic hand that closes up when an ultrasonic sensor in the palm senses an object.
- DC to DC buck converter
- Demonstration of every peripheral on the pic 18f series microcontroller with register level code (no libraries).
- Marble race track with 10+ sensors and actuators.
- RC winged plane.

