



EMPLOYMENT

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|--|---------------------------|--------------------------------|
| First Lieutenant Officer | Egyptian Air Force | 2020 - 2023 |
| <ul style="list-style-type: none">• Responsible for Officer affairs At Presidency of the Air Force. | | |
| Robotics Instructor | IVY School | Fall 2022 |
| <ul style="list-style-type: none">• Responsible to teach school students underwater robotics concept and mentoring them to build their own underwater Remotely operated vehicle to participate in underwater robotics competition. | | |
| Electrical Team Manager | Sailfish ROV | Fall 2018 – Spring 2020 |
| <ul style="list-style-type: none">• Develop a control software for the ROV with (Python, C and LabVIEW).• Provide workforce and performance reports to management. | | |
| CNC & 3d Printers production | Freelance | Summers 2017 - 2019 |
| <ul style="list-style-type: none">• Designing CNCs & 3d printers custom-made for personal and production uses. | | |

EDUCATION

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| 10th of Ramadan, Ash Sharqia | Higher Technological Institute | Sept 2015 – May 2020 |
| <ul style="list-style-type: none">• B.E. in Mechatronics Engineering GPA: 2.67• Graduate Coursework: Embedded Systems at IMT (Dec. 2020). | | |

TECHNICAL EXPERIENCE

Projects

- **Multi-Purpose ROV.** [Python, Embedded Linux] A Remotely operated underwater vehicle with a robotic arm and various actuators made to participate in MATE ROV Competition.
- **Production Line.** [Embedded System] A food production line that can be programmed to make various food types using robotic arms to simulate chef's motions and gestures.
- **Encrypted Couples Communication App.** [FireBase, Java] Android app for couples to share their moments, photos and chat in an encrypted and secured protocol. Android Studio.
- **Crazy Cards.** [Java] Android cards Game with single and multi-player online gameplay.
- **Robotics.** [Embedded Systems, Python] ROV - AUV - RC Cars - 3d Printers - CNCs - Production Lines - Smart Homes.
- **Employees Management Dashboard.** [ReactJS, NodeJS, Mongoose] React app to manage employees and assigning tasks and posting notes between workforce.
- **Officer Affairs App.** [Python] Desktop application to handle air force officer affairs and manage officer military file.

Competitions

- Real Steel Fighting Robots (Apr. 2017)
- IEEE walking robots Competition (Aug. 2017)
- CIC Arena Competition (Sep. 2017)
- Robots Cemetery (Oct. 2018) **[2nd Place Award]**
- Mate ROV Competition (Apr. 2018-2019-2020)

ACCOMPLISHMENTS

- **Instructor (2019–2021):** Taught three full-credit ROV manufacturing courses for juniors.
- **Instructor (Dec. 2019):** Taught Arduino and Proteus Course (Dec. 2019).

LANGUAGES AND TECHNOLOGIES

- **Programming Languages:** JavaScript (ES6); C/C++; Java; Typescript; Embedded C; Python; LabVIEW.
- **Concepts:** Algorithm; Data-Structures; OOP; Design Patterns; Version Control.
- **Framework and Tools:** NodeJS; ExpressJS; HTML5; CSS3, Bootstrap; EJS; ReactJS; Mongoose; Postman; NPM.
- **Software Tools:** VS Code; GIT; Hyper; Solidworks; Android Studio; Proteus PCB; LabVIEW; Auto CAD; Adobe Photoshop; Adobe Illustrator; Adobe After Effects
- **Databases:** MongoDB; Firebase; MySQL.