

Ziad Mohamed

OBJECTIVE

A dedicated software engineer Eager to contribute to the development of innovative software solutions while continuously enhancing my technical skills and contributing to the team's success.

EDUCATION

- Student in Electrical Engineering (Ivl.4)
- Misr Higher Institute for Engineering and Technology
- **Major:** Computers Engineering.
- **Grade:** Very Good

TECNICAL EXPERIENCE

PROJECTS:

Mobile Application Penetration Testing Using Advanced Security Standards

Participated in a comprehensive mobile application penetration testing project as part of the Digital Egypt Pioneers initiative in collaboration with Next Academy. The project involved:

- Utilizing industry-standard frameworks like OWASP MASVS and Mobile Top 10.
- Employing advanced tools such as Burp Suite, Frida, MobSF, and ADB.
- Conducting vulnerability assessments on critical issues like weak authentication, Firebase misconfigurations, and insecure OTP mechanisms.
- Provided detailed technical reports and actionable recommendations to fortify the application's security against potential cyber threats.

Intelligent Computer Aided System for Agriculture Applications :

We have 2 approaches:

- 1st approach: capture images of crops from ESP CAM, then these images can be processed using YOLO algorithm to identify type of diseases.
- 2nd approach: using sensors and data analytics to monitor soil health inn real time.

Supplement Store System Using(Python , SQLite) :

Supplement Store management system used to help managing the operations of a Store.

Some of key features : Inventory management, Customer management, Sales management, Purchases management and Products management.

Self-driving car (Neural Network NEAT genetic algorithm) :

- Create a population of cars with different neural network structures.
- Simulate each car in the environment.
- Evaluate car performance (staying on track, avoiding collisions, reaching goal).
- Select best-performing cars as parents for the next generation.
- Apply NEAT genetic operations to parents' neural networks.
- Repeat steps 2-5 for multiple generations.

Akronoid game (C++, SFML) :

Arkanoid is a classic arcade game where you control a paddle to deflect a ball and break bricks.

Electricity Generation from Artificial Speed Bumps (Piezoelectric) :

The method utilizes a physical property known as piezoelectricity.

- Piezoelectric materials like BZO are embedded within artificial speed bumps on roads.
- As vehicles pass over the bumps, the BZO material is subjected to mechanical stress.
- Due to the piezoelectric property, the mechanical stress is converted into electrical energy.
- The generated electricity can be stored in batteries or directly fed into the power grid.

AWARDS

- 2nd PLACE in IEEE EGYPT AP-S/MTT-S Joint Chapter 2023.
- 3rd Place in Orange Digital Center Egypt Hackathon
- The Best leader of my Major
- An exemplary model that represents the name of my university in the field of challenges

EXTRACURRICULAR ACTIVITIES

- Participant at ECPC HONORABLE MENTION FROM ICPC 2023 twice in a row. (2021-2022)
- NASA SPACE APPS CAIRO 2022.
- Leader of my class
- Volunteer at ACPC as HR. (2022)
- Volunteer as Multimedia at IEE-ZSB
- Volunteer as Vice Head HR GDSC
- Volunteer PR member at IEEE-TSB
- Volunteer at MUTEX Summit

LANGUAGE AND TECHNOLOGY

- Programming Languages: C#, Python ,C++, JS
- Strong problem solving and debugging skills.
- Mysql , SQLite.
- Object Oriented Programming .
- Data structures and Algorithms .
- Design Pattern .
- Linux
- Operating System
- A+
- N+

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TRAINING

NANSC:

Summer training course on Voice communication (VHF ,HF) ,Navigation Aids , Satellite , RADAR ,PABX & Fiber System