Yusuf Morsi

Python, C, C++, Java

https://github.com/ymorsi7
ymorsi7@gmail.com
www.ymorsi.com

EDUCATION

University of California, San Diego, Bachelor's of Science Degree

- ***Electrical Engineering B.S.*** *(Oct. 2020 - June 2024)*
  - *Depth in* ***Machine Learning***
  - ***Minor in Mathematics***
- ***Organizations:*** ECE Alumni Mentorship Program, IEEE, ECE Undergrad Student Council, CS Foreach, ACM

University of California, San Diego Extension, Certification Programs

- ***Android Programming Program Certification*** *(Sep. 2021 - June 2022)*
- ***Front-End Web Development Program Certification*** *(Jan. 2020 - Sep. 2020)*
- ***iOS Programming Program Certification*** *(Jan. 2019 - May 2019)*

WORK EXPERIENCE

Undergraduate Researcher, UCSD DigiHealth Lab *April 2021 – Present*

- DigiHealth is a joint research laboratory of UCSD Design Lab and the Jacobs School of Engineering ECE department.
- Working under the guidance of Professor Edward Wang and his Ph.D. students to develop a wearable health device that measures certain levels of the wearer, such as blood sugar.
  - Contributions include writing Arduino/C++ code for I2C communication, designing circuits on Eagle, and soldering them.

Software Developer, Project YLLOW *Oct. 2021 – Present*

- Developing exclusive social platform where people are only able to add people that they meet in real life by scanning an NFC chip. I decided to join this startup part-time for the opportunity to work with NFC chips and mobile app development.
  - Using Java, Kotlin, and Firebase

Mathematics Instructor, Mathnasium *May 2021 – Present*

- I instruct elementary, middle, and high school students in areas of mathematics up until Pre-Calculus (~10 hours/week).

Researcher, Young Engineer Experience, SDSU Experimental Mechanics Lab *June 2019 - July 2019*

- Under the guidance of Professor George Youssef, I researched the tensile strength of 3D printed ABS ASTM D638 samples versus ASTM D638 samples created with injection molding.

PROJECTS

AI Yusuf Discord Bot with PyTorch *Nov. 2021 – Present*

- Used PyTorch to interpret transcripts of conversations and create a chatbot using them.
- With Python, I created a Discord bot that sorts through conversations in a server that I'm active in and generates transcripts.
- Machine learning code has been created and tested. The project is currently in the data collection phase to maximize accuracy.

Drowsiness Detection with OpenCV and Arduino *Feb. 2021 – March 2021*

- In this project, a colleague and I programmed software that detects when the user becomes drowsy and starts to close their eyes before alerting the user with a buzzing noise until they open their eyes again.
  - My work includes writing code that detects eye movement, and writing/editing a report on the project using LaTeX.

HC-SR04 Ultrasonic Security Sensor with MATLAB, Arduino, Eagle, Fritzing *Nov. 2020 - Dec. 2020*

- Two other ECE students and I used MATLAB, an Arduino MEGA, LEDs, a buzzer, an IR remote and receiver, and a DHT11 temperature sensor to create a security device. This device not only detects movement, but also determines whether it's caused by a living being.
  - I worked on Arduino/C++ code, worked on the Eagle file, and created the Fritzing file for this project.

LEADERSHIP / AWARDS

- **CS Foreach Early Start Mentor** (2021-*Present*)
- **IEEE Technical Committee Member** (2021-*Present*)
- **President** of high school's **Architecture, Construction, and Engineering Club** (Member: 2016-20, Pres.: 2019-20)
- **Scholarship for Electrical Engineering**, *ACE Mentor Program*, May 2019
- **Scholarship for Electrical Engineering**, *ACE Mentor Program*, May 2020
- **AP Scholar**, *College Board*, July 2020
- **Student of Distinction / Student Spotlight**, *UCSD Extension*, July 2020

MORE INFORMATION

- Speaks Arabic at professional working proficiency
- Has held certification in **Cybersecurity for Critical Urban Infrastructure** from MIT (via edX) since July 2020
- Has held **MATLAB OnRamp** certification from MathWorks since October 2020
- Experience in 3D printing, Autodesk Inventor, Revit, Eagle, Vivado, Fritzing, Multisim, and more