Yusuf Morsi

ymorsi7@gmail.com
(619) 855-2450

https://github.com/ymorsi7
www.ymorsi.com
Python, C++, Java, C

EDUCATION

University of California, San Diego
- ***Electrical Engineering B.S.*** *(Oct. 2020 - June 2024)*
  - *Depth in **Machine Learning and Controls***
  - *Minor in **Business***
- ***Relevant Coursework:*** <u>Rapid Python Design</u>; <u>Probability and Stats</u>; <u>C Programming</u>; <u>Computer Organization</u>; <u>Digital Systems</u>; <u>Linear/Nonlinear Optimization</u>; <u>Control Theory</u>; <u>Python for Data Analysis</u>; <u>Data Structures, Algorithms</u>; <u>Race, Gender, & Computing</u>

UC San Diego Extended Studies
- ***Business Management Certification*** *(May 2021)*
- ***Front-End Web Development Certification*** *(Sep. 2020)*
- ***iOS Programming Certification*** *(May 2019)*

WORK EXPERIENCE

Machine Learning Intern, Advanced AI Solutions   *Sep. 2022 – Present*
- Using **Python (TensorFlow, Keras**) and **CNNs** to develop fire detection and thermal imaging software for autonomous firefighting drones.

Software Engineer Intern, CarsXE API   *June 2022 – Present*
- Assisting in full-stack web development (**HTML/CSS**, **Vue.js**), and leading intern license plate recognition software implementation [**Python (TensorFlow, YOLOv4, OpenCV, Tesseract OCR)**]

Software Engineer Intern, UCSD Mobile Systems Design Lab (Dr. Sujit Dey)   *June 2022 – Sep. 2022*
- Assisted in development of iOS (**Swift**), Android (**Java, Retrofit, JavaScript (Axios)**) apps that enable engagement between <u>ML blood pressure platform</u>, patients, and physicians.
  - Recipient of UCSD Summer Research Internship Program

Software Engineer Intern, Project YLLOW   *Oct. 2021 – June 2022*
- Strengthened internet safety by assisting in design and development of an iOS social platform with restricted access by utilizing NFC chips to only allow adding of real-life acquaintances (**Swift and Firebase**).

Research Intern, UCSD DigiHealth Lab (Dr. Edward Wang)   *April 2021 – May 2022*
- Designed I2C communication code with **C++**, utilized **Eagle** to design circuit schematics, and soldered in a laboratory setting.

PROJECTS

Drowsiness Detection with OpenCV and MATLAB   *March 2021*
- Increased student productivity by partnering with a colleague to program software to provide a buzzing alert when detecting user drowsiness and eye closing.
  - Used **Python (OpenCV)** to write eye movement detection code, **MATLAB** for hardware, and **LaTeX** for paper.

HC-SR04 Ultrasonic Security Sensor   *Dec. 2020*
- Tackled security vulnerabilities by teaming with peers to use movement to identify living beings for a security device.
  - Wrote **Arduino/C++** and **MATLAB** code, contributed to **Eagle** file, and prepared **Fritzing** file for on-time delivery.

LEADERSHIP / AWARDS

- **Winner of SD Hacks Civic Engagement Category** (April 2022)
  - Won **first place** in category out of 30 teams in a hackathon at UCSD by working with three colleagues to develop a [site](#) that matches student organizations with sponsors.
    - Designed and developed the UI/UX with **HTML/CSS, JS**.
- **CS Foreach Early Start Mentor** (Oct. 2021 – *Present*)
  - Working with other UCSD students to teach a high school student how to create a website with **HTML/CSS, JS**.
- **UCSD ECE Undergrad Student Council Mentor** (Oct. 2021 – *Present*)
  - I meet weekly with first-year ECE students at UCSD to advise them and answer their questions about ECE/ML.
  - Two of my mentees used my advice to land internships for the summer of 2022
- **Student of Distinction / Student Spotlight**, *UCSD Extended Studies* (July 2020)
- **Scholarship for Electrical Engineering**, *ACE Mentor Program* (May 2019, June 2020)

MORE INFORMATION

- Fluent in both English and Arabic
- Certified in **Project Management**
- Experienced with **machine learning**, **web and app development**, LTspice, Eagle, Vivado, Fritzing, Multisim