Yusuf Morsi

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

EDUCATION

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

- ***Electrical Engineering B.S.*** *(Oct. 2020 - June 2024)*
  - *Depth in* ***Machine Learning and Controls***
  - *Minor in* ***Business***
- ***Relevant Coursework:*** *Rapid Python Design, Prob. and Stats, Accelerated C, Computer Organization, Digital Systems, Circuits and Systems, Linear Systems, Linear & Nonlinear Optimization (Fall), Linear Control System Theory (Fall), Programming for Data Analysis w/ Python (Fall)*

UC San Diego Extended Studies, Certifications

- ***Business Management Certification*** *(May 2021)*
- ***Front-End Web Development Certification*** *(Sep. 2020)*
- ***iOS Programming Certification*** *(May 2019)*

WORK EXPERIENCE

Research Intern, UCSD Mobile Systems Design Lab (Dr. Sujit Dey) *June 2022 – Present*

- Focussing on the R&D of **iOS** and **Android** apps that enable engagement between an ML platform, patients, and physicians.
  - Using **Swift**, **Java**, **HTML**, **CSS**, and **JavaScript**

Software Engineer Intern, Project YLLOW *Oct. 2021 – June 2022*

- Developed a social platform where people are only able to add people that they meet in real life by **scanning an NFC chip**
  - Used **Java, React-Native, Swift, and Firebase**. Also created site with **HTML, CSS,** and **JavaScript.**

Undergraduate Researcher, UCSD DigiHealth Lab (Dr. Edward Wang) *April 2021 – May 2022*

- Wrote **C++** code for **I2C communication**, **designed circuits** on Eagle, and **soldered** them.

Mathematics Instructor, Mathnasium *May 2021 – April 2022*

- Instructed **over 100** K-12 students in mathematics.

Research Intern, 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

CarbonVista: Vehicle Carbon Footprint Calculator (HTML, CSS, JavaScript) *April 2022*

- Our website calculates how many pounds of CO2 the user's vehicle emits per day using a formula implemented with JavaScript
- I organized the project plan, assigned tasks, and oversaw the completion of tasks by my 4 teammates.

Drowsiness Detection with Python (OpenCV), Arduino, LaTeX *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 them with a buzzing noise until they open their eyes again.
  - My work includes writing **Python** 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 wrote code for the **Arduino/C++ code**, the **Eagle** file, and created the **Fritzing** file for this project.

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 using **HTML, CSS,** and **JavaScript**.
- **CS Foreach Early Start Mentor** (2021 – *Present*)
  - Working with other UCSD students to teach a high school student how to create a website with **HTML, CSS, and JS**.
- **UCSD ECE Undergrad Student Council Mentor** (2021 – *Present*)
  - I meet weekly with first-year ECE students at UCSD to advise them and answer their questions about ECE, classes, and more.
  - Two of my mentees used my advice to land internships for the summer of 2022
- **Student of Distinction / Student Spotlight**, *UCSD Extension*, July 2020
  - After scoring at the top of my class in my UCSD Extension certification, an article was written about me.
- **Scholarship for Electrical Engineering**, *ACE Mentor Program*, May 2020
- **Scholarship for Electrical Engineering**, *ACE Mentor Program*, May 2019
- **President** of high school's **Architecture, Construction, and Engineering Club** in senior year (Member: 2016 – 2020)

MORE INFORMATION

- Fluent in both English and Arabic
- Holds **MATLAB OnRamp** and **Project Management** certifications
- Experience with **machine learning**, **web and app development**, LTspice, Eagle, Vivado, Fritzing, Multisim