

Yusuf Morsi

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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; Probability and Stats; C Programming; Computer Organization; Digital Systems; Linear & Nonlinear Optimization; Linear Control System Theory; Python for Data Analysis; Race, Gender, and Computing

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

Machine Learning Intern, Advanced AI Solutions

Sep. 2022 – Dec. 2022

- Will develop fire detection and thermal imaging software for autonomous firefighting drones.
 - Using **Python (TensorFlow, Keras)**

Software Engineer Intern, CarsXE API

June 2022 – Sep. 2022

- Focusing on front-end web development and machine learning for car data.
 - Using **HTML, CSS, JavaScript, JSON, Python**

Research Intern, UCSD Mobile Systems Design Lab (Dr. Sujit Dey)

June 2022 – Sep. 2022

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

Software Engineer Intern, Project YELLOW

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**.

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.

PROJECTS

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 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, and circuit components to create a security device that detects movement and 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** (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, May 2020
- **President** of high school's **Architecture, Construction, and Engineering Club** in senior year (Member: 2016-20)

MORE INFORMATION

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