

Omar Abuasba

oabuasba@asu.edu

(702) 234-9721

<https://oabuasba.github.io/personal-website/>

<https://github.com/oabuasba>

SKILLS

Languages: Java | Javascript | Python | SQL | C | C++ | Scheme | HTML | CSS

Frameworks: Cheerio | Puppeteer | Bootstrap | Node.js | JQuery | Arduino | NumPy | Pandas | Matplotlib | FastAPI

Tools & Technologies: Windows | WSL (Windows Subsystem for Linux) | Ubuntu | Git | APIs | AutoCAD

EDUCATION

Ira A. Fulton Schools of Engineering, Arizona State University, Tempe, AZ

GPA: 4.0 | May 2026

Barrett, the Honors College & Next Generation Service Corps, Public Service Academy

Bachelor of Science, Computer Science

Certificate, Cross-Sector Leadership

Awards: Dean's List (Fall 2022 - Spring 2024), Excellence in Engineering Leadership Scholarship (Spring 2023)

PROFESSIONAL EXPERIENCE

Research Fellow, ASU Urban Climate Research Center

Aug 2024 - Present

- Compiling and Running the WRF Climate Model on ASU supercomputing and analyzing the output to determine important patterns within different urban climates.
- Assisting with the SW-IFL Project to create a Model of Models, a compilation of all prominent climate models, by working with the WRF model and examining its output in comparison to other climate models.

Software Engineering Intern, Musubi Technologies

Jun 2024 - Aug 2024

- Coded an Arduino motor that powered a pulley system through 6 different modes allowing for constant, variable, or random direction and speed while improving efficiency by over 200% from the original prototype.
- Added Bluetooth functionality to allow users to choose the mode of the wheel, a 32-character LCD with information about the current mode, and a button with a default mode.

Project Management Intern, Sun West Custom Homes

May 2023 - Aug 2023 | July 2024 - Aug 2024

- Utilized OptiSigns and Google Slides to begin foundational work to implement digital signage in 10 hotels, responsible for internal communication among Corporate, Hotel Management, and Employees.
- Assisted project managers by providing insight into the status of the overall hotel and progress of specific rooms.
- Shadowed the development of a server room responsible for 50+ computers and telephones at a Hilton Hotel.
- Created 4 detail CADD Designs for the Design Team to assist with the development of a 45,000 sqft mansion.

PROJECTS

GymGoat (Python, SQL, FastAPI) @ Sunhacks 2024

Sept 2024

- Developed back-end database using SQLite to store user, workout, request information, and hashed passwords.
- Created an API that retrieves information from the database and ports the BaseModel objects to the front end, which my team displayed dynamically depending on the current user, using React.

Autonomous Drone, Software Engineer @ Paragon Autonomous (EPICS @ ASU)

Aug 2024 - Present

- Developing an autonomous drone to map forest fires and provide medical supplies using Python and Arduino.
- Contributed to the front-end development of the product's website using HTML, CSS, and Bootstrap.

Depop API Web Scraper (Javascript, Node.JS, Puppeteer, Cheerio, JQuery)

May 2024 - Jun 2024

- Implemented a custom web scraper and API to extract data from Depop and increase user search efficiency.
- Retrieve a seller's information or the 25 most recent reviews as JSON Objects through custom API GET calls.

LEADERSHIP EXPERIENCE

Peer Leader, Fulton Accelerated Community Engagement (FACE)

Aug 2023 - Present

- Led 12 students through the program, providing guidance and facilitating a problem-solving group project.
- Hosted and assisted with 10 Lunch and Learn Presentations focusing on special topics chosen by program faculty and other peer leaders, modeling different aspects of engineering leadership.