FATIMA SHAIK

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SKILLS

Programming	Python, Java, C/C++, HTML/CSS/JavaScript, R, Matlab
Hardware	Arduino, Texas Instruments, Altium Designer, LT Spice, OrCAD, Circuit Design
Other	Autodesk Fusion 360, Adobe Photoshop, Adobe Illustrator, HubSpot

WORK EXPERIENCE

UC Davis Health - Levenson Lab April 2023 - September 2023
Student Programmer *Sacramento, CA*

- Worked on Darius, an interface built on Visual Basic and .NET that controls a 405nm auto-fluorescent microscope
- Refactored the code base to improve code readability and added exception handling to prevent application crashes
- Added functionality to allow users to change the camera/scan setting using the GUI and to save metadata about the scans as HTML files
- Enhanced the image stitching functionality by using the TIFF library to convert the scans from the microscopes to resized bitmaps and the MVStitching library to stitch the multiple scans of an object together
- Fixed a major hardware failure and rewrote the software-hardware connectivity layer to better detect hardware failures and accommodate hardware changes
- Wrote the documentation for the application to make it easier for other programmers to onboard

Girls Who Code June 2022 - August 2022
Summer Immersion Program Teacher Assistant *Virtual*

- Taught 90 students how to build dynamic websites and programming fundamentals (using HTML/CSS/JS)
- Helped students debug their websites and reinforced their understanding of the material individually during office hours
- Organized debugging activities where students were tasked to solve common coding errors in sample projects to build their problem-solving skills

PROJECTS

Listify
Python, Flask, Tailwind CSS, Open Weather API, Ipify API, and Ipapi API

- Built a To-Do List Web Application in Flask & Tailwind CSS that allows users to add, prioritize, and delete tasks
- Coded functionality to show the weather of the user's current location through the user's IP address using open source APIs (Open Weather, Ipify, and Ipapi)

Grouptube
Node.js, Express.js, Bootstrap, WebSockets

- Built a Node.js web app that uses web sockets to allow a group of users to watch and control the same YouTube video and chat about it synchronously

EE-Connect
C, MSP432E401Y 32-bit Microcontroller, ws2812 library

- Led a team of 8 (by organizing stand-ups & meetings, designing and delegating tasks, communicating with external stakeholders, and helping with engineering work) to create a modular Connect 4 Board using LEDs instead of tokens
- Programmed game logic on a microcontroller that controlled a LED board with buttons that were debounced using C and Neopixel library

EDUCATION

University of California, Davis Expected June 2025
B.S. Computer Engineering, GPA: 3.72/4.0 *Davis, CA*

Relevant Coursework: Data Structures & Algorithms, Object Oriented Programming in C++, Programming in Micro-Controllers, Circuits II, Introduction to Digital & Analog Systems, Digital Systems I, Control Systems, Applied Machine Learning, Programming in Python and C, EE Emerge, Introduction to Data Science