FATIMA SHAIK

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EDUCATION

University of California, Davis — Expected June 2025
B.S. Computer Engineering, Minor in Technology Management GPA: 3.737/4.0 — *Davis, CA*

Relevant Coursework: Computer Architecture, Performance Engineering, Data Structures & Algorithms, Programming Micro-Controllers, Circuits II, Introduction to Digital & Analog Systems, Digital Systems I, Control Systems, Applied ML
Organizations: Tau Beta Pi, COFFEE (Club Of Future Female Electrical Engineers), IEEE

SKILLS

Programming	C/C++, Python, Java, Matlab, HTML/CSS/JavaScript, R, RISC-V, Verilog (In-Progress)
Hardware	Altium Designer, LT Spice, OrCAD, Arduino, Texas Instruments Microcontrollers, Circuit Design
Other	Autodesk Fusion 360, Adobe Photoshop, Adobe Illustrator, InkScape, HubSpot

WORK EXPERIENCE

UC Davis - ECE Department — September 2023-Present
Student Lab Assistant - EEC 1 & EEC 7 — *Davis, CA*

· Taught students electrical engineering concepts and basic coding practices and concepts in C to program micro-controllers.

· Demonstrated circuit debugging techniques like using oscilloscopes and multi-meters to validate student's circuits.

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

· Fixed a major hardware failure and rewrote the software-hardware connectivity layer to detect hardware failures better and accommodate hardware changes

PROJECTS

EE-Connect — December 2022 - June 2023
Altium, Fusion 360, Inkscape, 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 large-scale, electrical and modular Connect-4 Game

Implemented and designed hardware and software layers (programmed in C) to create an embedded system

· Designed using Fusion 360 and 3D printed modular cells and stand & wrote documentation for the 3D Printer

· Built custom PCBs with original circuit design, using Altium Designer. Created BOMs, Centroid File, and Gerber Files necessary to order PCBs

LED-SignBoard — September 2022 - December 2022
Altium, Fusion 360, Inkscape, MSP432E401Y 32-bit Microcontroller, ws2812 library

· Designed a circuit powered by a 5V battery utilizing various DC/DC converters and a Microcontroller to light up a sign

· Programmed the micro-controller in C to produce various patterns of light by toggling the state of pins and controlled intensity and speed of lights by mapping PWM signals to a potentiometer

· Modeled various enclosures and battery holders using Fusion360 and 3D printed them

Sound Controlled Car — March 2022 - June 2022
MSP432E401Y 32-bit Microcontroller, C

· Designed a robot that analyzes the surrounding sound signals and drives itself to that signal

· Created a microphone amplifier circuit that records analog sound signals and programmed digital band-pass filters to reduce noise

· Optimize the robot's movement by using ADC converters, translating the data to robot movement using PWM signals