Michelle Herrera-Cuen

Computer Engineer | Embedded Systems | Microcontrollers | Programming | Robotics

mherrerachelly2005@gmail.com | michelleherreraprojects.com | Los Angeles, California

Familiar with: C, C++, Python, Java, HTML, CSS, JavaScript, Linux, Verilog, Blender, Roblox Studio, React.js

Experience

Cashier

Jack in the Box

Torrance, CA | June 2022-current

- Delivering outstanding customer service through speedy and accurate decisions
- Maintaining high-quality standards throughout the workplace environment

Projects

Game Development

June 2022-current

- Developed several games and gained proficient skills in programming languages such as Lua, TypeScript, Java, React, and Python, C(GTK). *Currently developing a React.js Web Game*
- Utilized Blender for graphical aspect of UI and Unity/Roblox Studio for development
- Developed a Space Invaders–style embedded game on LaunchPad using C, integrating Nokia 5110 LCD, ADC-based potentiometer input, GPIO interrupts for controls, and PWM-driven DAC audio; implemented modular real-time firmware with bitmap graphics, collision detection, and interrupt-based timing.

Robotics

June 2022-current

- VEX 687 Robot: Managed team to program robotic arm in maximally elevating robot from ground in Robotics competition within 3 months. Utilize Arduino and Mechanical concepts.
- Line-Following Robot: Built an analog line-following robot using photodiode sensors, op-amp comparators, and an H-Bridge motor driver; applied circuit design, feedback control, and power management principles to achieve autonomous navigation without microcontrollers.
- Object and Wall Follower Robot: Designed and programmed an autonomous robot car with dual object-following and wall-following modes using IR sensors, DC motors, and a LaunchPad microcontroller; implemented GPIO, ADC, PWM, and interrupt-driven control for real-time sensor-based navigation.

Associations

Society of Automotive Engineers

Data Acquisition Member | Sept 2024-May 2025

- Paired programming of ESP32 microcontroller to send and collect data from height and temperature sensors using C language. Utilized Raspberry Pi computer receiving data from ESP32 via a LoRa module

Institute of Electrical and Electronics Engineers

Member | Feb 2024-current

- PCB design and Altium Designer

Women in Computing

Member | Aug 2024-current

- 2024 and 2025 Hackathon Participant, developed two entertainment projects

Education

Bachelor's of Science in Computer Engineering

California State University, Long Beach | 2023-expected 2027