Jonathan Fuentes

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EDUCATION

California State University, Long Beach   May, 2027
Long Beach, CA

- Bachelors of Science (B.S.) in Computer Engineering | President's List (Fall 2024)

Long Beach City College | Honors College   May, 2024
Long Beach, CA

- Associates of Science (A.S.) in Computer Science | GPA: 3.5

TECHNICAL SKILLS

Languages, Frameworks, & Libraries:

- C, C++, Python, Verilog/SystemVerilog, Java, JavaScript, HTML5/CSS3, RISC-V/MIPS Assembly, Numpy, Tensorflow, Pandas.

Hardware & Tools:

- Microcontrollers (8051 architecture & RP2040), FPGA, Raspberry Pi, Vivado, Keil IDE, KiCAD (PCB Design), Circuit Simulation (LTspice), Autodesk Fusion, Git, Node-RED, Grafana, InfluxDB, Mosquitto, Linux.

PROJECTS

Portfolio Website   January, 2025

- https://jonathan-fuentes01.github.io/Portfolio-Website/
- Designed and coded my website in HTML/CSS/JavaScript and uploaded it to a Github Repository as a Github Page to display current projects during my undergraduate studies.

Mechanical Number Pad Using 3D Printed Case and Custom PCB   April, 2025

- Created a functional number pad keyboard driven by a micro-controller. (Raspberry Pi Pico)
- Designed a custom 2 layer PCB design created in KiCAD to allow necessary 1N4148 diode and copper connections.
- Modeled the outer case design for the keyboard using the top-mounted plate mounting technique in Autodesk Fusion.

Real-Time Data Visualization on Raspberry Pi 3 using MING IoT Stack   December, 2024

- Created a Python script in a virtual environment to read accelerometer values from an MPU6050 and also saved the data in both JSON and CSV formats using Helix.
- Implemented MQTT protocol through Mosquitto broker and paho-mqtt library which allowed client communication to InfluxDB database.
- Queried data from InfluxDB using Flux to visualize data on Grafana.

LEADERSHIP & EXPERIENCE

California State University, Long Beach | Undergraduate Research Assistant   January, 2025 - Present
Long Beach, CA

- Primary focus on human-gait authentication using neural network models (CNN, RNN, BiLSTM).
- Handled the necessary IoT hardware needed for data acquisition for the model.

Achievement Institute for STEM Scholars | Program Instructor   March, 2025 - Present
Santa Ana, CA

- Helped with outreach for Bridging the Gap 2025 sponsor event and the program website.
- Attend bi-weekly scholar meetings and program events to gather photos for the social media accounts.