

Jeffrey Madrid

US Citizen, Long Beach, CA 90815
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EDUCATION

Long Beach State, Long Beach, CA - **Computer Engineering/Computer Science Minor**

Expected Graduation: May 2025

Relevant Courses: Java Programming, C++ Programming, Data Structure Concepts, Discrete Structures for Computers, Engineering Physics, Computer Logic Design, Circuit Analysis, Algorithms, Numerical Methods, Microcontrollers

Math Level: College Algebra, Trigonometry, Calculus I, II and Intermediate, Linear algebra, Discrete Math

Leadership: Associated Student Government (Senator of Engineering), EV Computer Systems Team 2019-2023

Awards: President's Volunteer Service Award (Gold) May 2022

SKILLS

- **Experience Technical Electronics:** Triomotion Controller, Automation Direct PLC, Raspberry Pi, 8051, TIVA- tm4c123, Arduino
- **Tools, Soldering Iron, Drills**
- **Bilingual:** English and Spanish Speaking(Translating)
- **Programming Languages:** C, C++, Python, Java, Verilog, Ladder Logic, Structured Text, Matlab, Pearl, Awk, Visual Basic
- **Panel building:** Wiring and manufacturing of controls systems
- **Tool use:** Mitersaw, Angle grinder, Knockout
- **Mechanical assembly:** Build custom machine

WORK EXPERIENCE

Robot Integrators | Lumis Automation, Placentia CA

2020- Present

Controls System Technician / Automation Intern

- Manufacture electrical panels using power tools and engineering blueprints
- Knowledgeable in motion control using servo and stepper technologies
- Training to program in structured text, ladder logic and python
- Exposed to many industries such as defense, medical, recycling and entertainment
- Understanding technologies such as sensors, safety, linear actuators, wireless controllers, Programmable logic Controllers(PLC) and Human Machine Interface(HMI)

Caltrans Division 7, Los Angeles CA

July-August 2022

Roadway Design Intern

- Assist in the design of transportation improvement projects
- Civil 3D used for 3 dimensional design, Mirco Station training for 2 dimensional design
- Worked alongside the Senior Transportation Engineer
- Learning about the geometrical design of roads

TTM Technologies, Anaheim CA

January 2022

Software Development Intern

- Training in Using Linux Operating System
- Getting familiar with Perl programming and Visual Basic Programming
- Learning how to write scripts in Awk programming
- Worked alongside the Senior Application Developer

Western Mill Fabricators, Placentia, CA

July 2014-2020

Finished Carpenter

- Read blueprints and build items to correct scale and dimensions
- Assisted with installation of the interior and exterior seating and décor package at top fast food chains (McDonald's, In-N-Out, Chick-fil-A, Del Taco, Pollo Loco etc.)

PROJECTS

Engineering

2020- 2023

- Radar System: Prototyped software in python used to serially decrypt inclinometer data
- Line Following Robot: Designed and built a fully analog line following robot
- Recycling System: Built controls system that is running two robots with machine vision system
- Oil Dispensing Machine: Constructed controls system, including VFD and AC power wiring
- Medical device: Worked on building controls system and wiring, learned about vision sensors
- Training stations: Manufactured PLC training stations for a local community college
- Mixing Auger System: Built custom controls system with a 460V VFD
- Field Wireable Connectors: Fabricated custom wires for a local engineering company