

Marcelo Covarrubias

Phone: (409)665-2763 | Email: cmarcelo.marc@gmail.com

EDUCATION

University of Texas Rio Grande Valley

Graduation: May 2021

Bachelor of Science in Electrical Engineering

EXPERIENCE

Amazon Warehouse McAllen - McAllen, TX

June 2022 - Present

Amazon Warehouse Worker

- Prepare and maintain organization of packages for delivery
- Coordinate with delivery drivers to ensure correct assignment of delivery routes. .
- Confirm and account for all inventory that arrives.

Entravision Communications - McAllen, TX

September 2021 - July 2022

Master Control Operator - Night Shift

- Monitor television broadcasts from various national markets.
- Alert the market and local engineers when there is an event that may interrupt the broadcast to the markets and coordinate a solution to the issues.
- Confirm - by the provided monitoring technology and by verbal notice from the engineers - that the station is on air and continue preventative measures against the loss of revenue.

Scruffy 2 Fluffy Pet Grooming - Pharr, TX

October 2020 - March 2021

Assistant Manager

- Coordinated grooming appointments.
- Management of invoices; Quickbooks.
- Logistical review of grooming supplies and inventory.
- Front desk register and assistance of pet and client during check in and departure.

Industrial Assessment Center - Edinburg, TX

March 2019 - December 2020

Energy Efficiency Assessor

- Presented a savings plan for the warehouse lighting at Fox Molding Plant in Harlingen TX on behalf of the U.S. Department of Energy.

Texas Staffing Pros - McAllen, TX
August 2019 - September 2019
Seasonal Machine Operator

- Operation and general maintenance of hydraulic torque machinery
- Assembly of high-pressure valves at Nibco.

C2C Technical Services - Detroit, MI
May 2018 - October 2018
Apprentice Electrician

- Install and demolish raceways, supports, grounding, and conductors.
- Install and terminate lights and oxygen, hazardous gas, and pressure sensors.

Primoris Service Corp - Baytown, TX
March 2018 - April 2018
Apprentice Electrician - Turnaround

- Install and terminate lights and oxygen, hazardous gas, and pressure sensors.
- Install and demolish raceways, supports, grounding, and conductors.

PROJECTS

Portable Security System
Fall 2020 - Spring 2021

- Designed, programmed, and assembled a portable security system that detects motion and notifies the user through an application.

Multistage Amplifier

Fall 2019

- Built a multistage amplifier using a common collector and common source.
- Achieved a low output resistance and specific swing with a common collector.
- Attained the required gain with a common source.

Active Filters

Fall 2019

- Designed and constructed a 5th order Chebychev High pass filter and a 2nd Order Resonant bandpass filter.
- Calculated the values of the op-amps, resistors, and capacitors using transfer functions.
- Constructed, tested, and confirmed successful operation on oscilloscope.

Digital State Machine Design

Fall 2020 - Spring 2021

- Created a digital state machine model of a memory tester with a specific order of buttons that needed to be pushed.
- Controlled using JK flip-flops to form a Moore Finite State machine.
- Constructed State Machine on breadboard and confirmed its successful operation.

Large Power Distribution Grid

Fall 2020

- Analysis and design of power distribution schematics using powerworld.

Up/Down 4-bit binary counter

Fall 2015

- Verilog
- Primarily JK flip-flops logic
- Constructed with LED's and other electronics to confirm successful operation.

Pulse, Switching, and Amplifier Circuits

Spring 2019 - Fall 2020

- Analog/Digital IO
- Constructed and confirmed successful operation with oscilloscope and multimeter.

VLSI CMOS Circuits

Spring 2021

- Fundamental understanding of NAND, NOR, and NOT gate design used as building block for further digital logic gates
- State machine with custom operation

Computation and Visualization of Multivariable Systems

Summer 2019 - Spring 2021

- MALAB
- Solving multivariable systems of equations
- Regression analysis with known data to determine necessary unknown variables for projects and homework.

SKILLS

- **Languages:** Native proficiency: English, Spanish
- **Software Language:** C/C++, Verilog, MATLAB, DOSBox Assembly.
- **Software Application:** Cadence Virtuoso, PSpice, Simulink, Logisim, Quartus, PowerWorld, Quickbooks, Bitcentral Media Workflow.
- **Hardware:** Altera's DE2 FPGA board, PICKit 3, Arduino, ESP8266, Adafruit GPS, Low/High power electronic Soldering.

Licenses

- **Type:** Apprentice Electrician License
- **Expiration Date:** 3/23/23

Volunteering

- **IEEE EDINBURG STUDENT BRANCH**
OFFICER – SECRETARY JUNE 2020 – MAY 2021