# **Sebastian Sotomayor**

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#### Education

### **University of Central Florida**

Orlando, FL

Bachelor of Science in Computer Engineering / GPA: 3.5

May 2026

Relevant Coursework: Data Structures and Algorithms, Digital Logic Design, Object Oriented Programming, Linear Circuits II

#### Skills

Software: C, Embedded C, Java, Python, MIPS, Arduino, Verilog, HTML/CSS

Equipment: Printed Circuit Board (PCB) Design, Breadboarding, Oscilloscope, Waveform Generator, Multimeter, Field

Programmable Gate Array (FPGA) Programming Languages: Fluent in English and Spanish

**Projects and Organizations** 

## **Institute of Electrical Electronics Engineers (IEEE)**

Orlando, FL

SoutheastCon Hardware Competition

September 2024 – March 2025

- Designed and integrated power electronics systems for a fully autonomous robot, focusing on reliable power distribution through buck converters and voltage dividers.
- Managed battery configurations and optimized electrical efficiency to meet the energy demands of various robotic components, ensuring stable and efficient power delivery throughout the system.

#### University of Central Florida – Data Structures and Algorithms

Orlando, FL

Experimental Study of Sorting Algorithms

September 2024 – December 2024

- Conducted experimental study of six sorting algorithms, analyzing execution times for datasets from 10,000 to 100,000 elements.
- Recorded and visualized 30+ data points in Excel, creating comparative plots to highlight time complexity trends and scalability.
- · Achieved insights into algorithm efficiency, demonstrating up to 90% faster execution for optimized algorithms on large datasets.

## **Puerto Rican Student Association**

Orlando, FL

Marketing Director

September 2022 – December 2023

- Executed targeted social media campaigns to enhance awareness of cultural events, fostering an environment where Puerto Rican students could connect and feel at home.
- Distributed promotional materials and managed Instagram, creating engaging posts and fostering online community engagement that resulted in 200 new followers.
- Built partnerships with media outlets and other Latin student associations to enhance visibility and promote cultural initiatives.

#### **Themed Entertainment Association**

Orlando, FL

Active Member

August 2024 – Present

- Participated an on-site visit at the Electronic Theater Controls (ETC) company, learning the intricacies of the entertainment industry
- Supported the planning and execution of the haunted house at UCF for 2025, designing the schematic for a use-case of the PCB

## **Professional Experience**

#### Winter Park Tennis Center

Maintenance Worker

Winter Park, FL

May 2024 – Present

- Performed routine tasks such as cleaning, sweeping, and sanitizing tennis courts, ensuring a safe playing environment for patrons.
- Conducted repairs and adjustments to court surfaces, nets, and fencing as needed, utilizing basic hand tools and equipment.
- · Inspected and maintained tennis court surfaces, nets, and equipment to ensure they are in optimal condition for use.

## **Plantation Central Park**

Plantation, FL

Facility Attendant August 2018 – October 2024

- $\circ$  Assisted an average of 200 park visitors daily by providing information about park amenities, rules, and regulations
- Greeted visitors at the reception desk, received incoming calls, created reservations, recorded messages, and provided necessary information in a professional manner.
- Maintained cleanliness and sanitation of park facilities, including restrooms, picnic areas, and playgrounds, contributing to a 55% increase in visitor satisfaction.