Sebastian Sotomayor

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Education

University of Central Florida **Orlando, FL**
Bachelor of Science in Computer Engineering / GPA: 3.5 Expected May 2026
Relevant Coursework: Data Structures and Algorithms I & II, Computer Architecture, Electronics I, Embedded Systems

Technical Skills

Programming & Software: C, Embedded C, Java, C++, Python, MIPS, HTML/CSS, JavaScript
Hardware & Tools: PCB Design, FPGA Programming, Oscilloscope, Waveform Generator, Multimeter
Languages: Fluent in English and Spanish

Professional Experience

General Dynamics Mission Systems (GDMS) **Orlando, FL**
Embedded Software Engineering Intern *September 2025 – Present*
• Implement and optimize C/C++ code for real-time operating systems (RTOS) to improve reliability and execution performance.
• Assist in hardware–software integration, troubleshooting communication protocols (UART, SPI, I2C), and validating system-level functionality.
• Utilize Git, debugging tools, and embedded workflows to support efficient collaboration and system testing.

Winter Park Tennis Center **Winter Park, FL**
Maintenance Worker *May 2024 – Present*
• Maintain and repair court surfaces, nets, and fencing to ensure a safe playing environment.
• Performed inspections and sanitation to improve facility readiness and patron satisfaction.

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 an autonomous robot, ensuring stable power delivery through buck converters and voltage dividers.
• Managed battery configurations and optimized electrical efficiency, contributing to reliable robot performance and competitive success.

University of Central Florida – Computer Organization **Orlando, FL**
Computer Organization Laboratory *January 2025 – April 2025*
• Designed and implemented MIPS assembly programs exploring memory hierarchy, datapath control, and instruction-level parallelism.
• Optimized floating-point and string processing algorithms by reducing instruction cycles and improving pipeline efficiency.

University of Central Florida – Embedded Systems **Orlando, FL**
Embedded Systems Laboratory *January 2025 – April 2025*
• Completed 11 projects using the MSP430FR6989, integrating peripherals such as LCDs, joysticks, and optical sensors via SPI, I2C, and UART.
• Developed interrupt-driven firmware in Embedded C, leveraging timers, ADCs, and low-power modes for real-time operation in constrained environments.