John Lewis

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Education

University of Florida - Gainesville, Florida **Expected Graduation: May 2027**

- Bachelor of Science in Computer Engineering **GPA: 3.90**
- Dean's List Award Recipient: Spring 2024, Fall 2024, Spring 2025
- Relevant Coursework: Data Structures and Algorithms, Computer Organization, Digital Logic and Computer Systems, Digital Design, Operating Systems, Linear Algebra, Discrete Structures

Palm Beach State College - Lake Worth, Florida **GPA: 4.00**

- Associate in Arts awarded May 2023

Professional Experience

Engineering Intern - Florida Turbine Technologies / Kratos Defense **May 2025 - Present**

- Applied control theory concepts to tune Proportional-Integral-Derivative (PID) controller gains
- Performed Hardware-in-the-loop (HIL) testing to confirm the controller meets expected performance specifications
- Developed and presented test plan documentation and post-test debriefs detailing objectives, procedures, expected outcomes, and findings
- Optimized MATLAB script for CAN Bus Logger Data Processing, increasing efficiency by 87% to allow for faster runtimes, as well as implemented error checking to confirm data completeness

Undergraduate Peer Instructor - Digital Logic and Computer Systems **January 2025 - May 2025**

- Held weekly office hours to guide students in improving their understanding of digital logic concepts
- Led weekly lab sections of 10+ students focused on applying digital logic principles taught in lectures
- Composed and administered lab quizzes to reinforce concepts taught in lectures and labs, resulting in a 13% improvement in average lab scores over the semester

Technical Projects

MIPS Processor - VHDL **March 2025 - April 2025**

- Designed an FPGA-based processor modeled from the Fetch-Decode-Execute cycle, which executes MIPS-type instructions given a Memory Initialization File (MIF)
- Developed a datapath and control unit capable of executing R-type, I-type, and memory-access instructions, applying knowledge of finite state machines (FSMs) and combinational logic
- Integrated on-board RAM and Memory-mapped I/O to input and store variables and instructions, execute them, and store the result

Game Twin - C++, Python, HTML, CSS **December 2024**

- Collaborated in a group of 3 to develop an application to recommend video games based on a past title the user enjoyed
- Parsed and filtered a dataset of 470,000+ video games to ensure games chosen apply to user criteria
- Implemented an advanced sorting algorithm to rank similar games by user-selected parameters, reducing search time by 99.95%, from 205ms to 0.1ms

Solar Guard - C++ **March 2024 - April 2024**

- Worked in a team of 6 to design, 3D print, program, solder, and assemble a smart sunscreen bottle that alerts the user when they should reapply
- Utilized an Arduino, UV sensor, piezo, a slide switch, and an RGB LED to calculate the current UV, decide how long the user should wait before reapplying, and alert the user after that period

Technical Skills

Programming: C++, VHDL, Python, HTML/CSS, MATLAB, Tailwind CSS, React.js, ARM Assembly
Tools & Technologies: Intel Quartus, CLion, VS Code, PyCharm, Questa/ModelSim, Linux, VirtualBox, Microsoft Visio