

# John Lewis

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## Education

<b>University of Florida</b> - Gainesville, Florida	<b>Expected Graduation: May 2027</b>
<ul style="list-style-type: none"><li>Bachelor of Science in Computer Engineering</li><li>Dean's List Award Recipient: Spring 2024, Fall 2024, Spring 2025</li><li>Relevant Coursework: Intro to Programming 1 and 2, Discrete Structures, Data Structures and Algorithms, Computer Organization, Digital Logic and Computer Systems, Digital Design, Operating Systems</li></ul>	<b>GPA: 3.90</b>
<b>Palm Beach State College</b> - Lake Worth, Florida	<b>GPA: 4.00</b>
<ul style="list-style-type: none"><li>Associate in Arts awarded May 2023</li></ul>	

## Professional Experience

<b>Engineering Intern - Florida Turbine Technologies / Kratos Defense</b>	<b>May 2025 - Present</b>
<ul style="list-style-type: none"><li>Applied control theory concepts to tune Proportional-Integral-Derivative (PID) controller gains and perform Hardware-in-the-loop (HIL) testing, ensuring the controller meets expected performance specifications</li><li>Developed and presented test plan documentation to detail the objectives, procedures and expected outcomes of upcoming tests</li><li>Optimized MATLAB CAN data parsing script, increasing efficiency by 87% to allow for faster runtimes, as well as implemented error checking to confirm data completeness</li></ul>	
<b>Undergraduate Peer Instructor - Digital Logic and Computer Systems</b>	<b>January 2025 - May 2025</b>
<ul style="list-style-type: none"><li>Held weekly office hours to guide students in improving their understanding of digital logic concepts</li><li>Led weekly lab sections where students implement digital logic principles taught in lectures</li><li>Composed and administered lab quizzes to enforce students' learning of concepts taught in lectures and labs</li></ul>	

## Technical Projects

<b>MIPS Processor - VHDL</b>	<b>March 2025 - April 2025</b>
<ul style="list-style-type: none"><li>Developed an FPGA-based processor modeled from the Fetch-Decode-Execute cycle, which executes MIPS-type instructions given a Memory Initialization File (MIF)</li><li>Integrated on-board RAM and Memory-mapped I/O to input and store variables and instructions, execute them, and store the result</li></ul>	
<b>Game Twin - C++, Python, HTML, CSS</b>	<b>December 2024</b>
<ul style="list-style-type: none"><li>Collaborated with a group to develop an application to recommend video games based on a past game user enjoyed</li><li>Parsed and filtered a dataset of 470,000+ video games to find the best matches for the user</li><li>Implemented quick sort to rank similar games by user-chosen parameters (e.g., Metacritic rating, number of suggestions), reducing search time from 205ms to 0.1ms</li></ul>	
<b>Smart Sunscreen Bottle - C++</b>	<b>March 2024 - April 2024</b>
<ul style="list-style-type: none"><li>Worked in a team to design, 3D print, program, solder, and assemble a sunscreen bottle that alerts the user when they should reapply</li><li>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</li></ul>	

## 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