JACOB LINGO

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Education

- University Of Central Florida	**Expected Graduation: Dec 2024**
Bachelor of Science Degree in Computer Engineering	**GPA: 3.1**

Related Coursework: Digital Signal Processing, Analog Filter Design, Embedded Systems, Computer Science I & II, Computer Architecture

- Valencia College	**Graduated: May 2017**
Associate of Science Degree in Sound and Music Technology	**GPA: 3.4**

Skills

Programming Languages:	C, Java, Python, Verilog, MIPS
Electrical:	FPGA, Circuit Analysis/Design, ThermoStream, Oscilloscopes, Function Generators, Power Supplies, Microcontrollers, Arduino, Signal Processing,
Applications:	Visual Studio Code, Eclipse, LabVIEW, NI Test Stand, Fusion360, Multisim, Vivado

Projects

Skip List Generic Java Collection
- Engineered a robust and efficient generic collection in Java, showcasing advanced programming skills.
- Implemented a skip list data structure, demonstrating a deep understanding of data structures and algorithms

Audio-Triggered Arduino Slot Car Controller
- Designed a bipolar transistor circuit to use a PWM signal to control the voltage supplied to a modified slot car track
- Developed an Arduino program to output a PWM signal based on the audio input to a microphone sensor

Microcontroller Platform Balancer
- Developed and implemented an application serving as a platform balancing control, utilizing UART interface and joystick input.
- Engineered functions to manipulate cursor movement, value adjustment, and calculate maximum positional deltas to ensure platform stability and safety.
- Implemented safety protocols to activate a buzzer if platform corner positional differences exceed predefined limits, ensuring operational safety.

Experience

Undergraduate Research Assistant – University of Central Florida   **January 2024 - Present**
- Conducting research on hardware security that investigates the feasibility of RowHammer attacks in modern DRAMs

Product Engineering Intern – Texas Instruments   **June 2023 – August 2023**
- Automated and optimized bench testing procedures, resulting in an 80% reduction in operator time
- Conducted thorough bench testing to correlate findings with ATE data, validating device specifications
- Investigated and resolved discrepancies between bench and ATE measurements in collaboration with the test team

Customer Excellence Associate – Mitsubishi Power   **January 2023 – Present**
- Spearheaded the development of a comprehensive Voice of the Customer dashboard to translate customer insights into strategic business actions
- Revamped the business unit's SharePoint site, fostering engagement and enhancing information quality
- Contributed to key initiatives, including the successful release of a redesigned customer portal, showcasing a commitment to continuous improvement

Lead Technician (Internet) - Encore Global   **January 2020 – January 2023**
- Orchestrated the installation and maintenance of temporary LAN/wireless networks, ensuring seamless connectivity for events
- Oversaw the monitoring and upkeep of the hotel's permanent networks, ensuring optimal performance.
- Conducted repairs and installations of various hardware components, including ports, wiring, and server racks
- Facilitated effective communication with clients, coordinating event logistics, and ensuring client satisfaction

Lead Technician (AV) - Encore Global   **November 2014 – Jan 2020**
- Served as the Lead Audio Engineer for live events with audiences of up to 1000 attendees
- Managed an operations crew of 3-25 professionals, ensuring the fulfillment of client needs and seamless event execution