JACOB LINGO

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Education

- *University of Central Florida*	Expected Graduation: May 2027
Master of Science in Computer Engineering	

- *University Of Central Florida*	Graduated: Dec 2024
Bachelor of Science in Computer Engineering	GPA: 3.20

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

- *Valencia College*	Graduated: May 2017
Associate of Science Degree in Sound and Music Technology	GPA: 3.40

Experience

Undergraduate Research Assistant – University of Central Florida   January 2024 - Present
- Conducting research on hardware security that investigates the feasibility of hardware attacks in modern DRAMs
- Engineering Verilog-based FPGA programs that implement hardware attacks on modern DRAM devices
- Collaborating with peers and professors, effectively communicating complex topics to a diverse team

Product Engineering Intern – Texas Instruments   June 2023 – August 2023
- Automated bench testing procedures using LabVIEW and TestStand, resulting in an 80% reduction in operator time
- Investigated and resolved discrepancies in test measurements through collaboration with cross-functional teams
- Actively contributed to the optimization of testing procedures, recommending solutions to improve testing workflows

Customer Excellence Associate – Mitsubishi Power   January 2023 – Present
- Leading Agile and DevOps-based initiatives with the development team to enhance the Customer Portal site
- Spearheaded development of a Voice of the Customer dashboard, converting insights into actionable business strategies
- Revamped the business unit's SharePoint site, fostering engagement and enhancing information quality

Lead Technician (Internet) - Encore Global   January 2020 – January 2023
- Orchestrated the installation and upkeep of temporary LAN/wireless networks, ensuring seamless event connectivity
- 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
- Learned new equipment and skills to consistently enhance my ability to deliver an excellent show
- Managed an operations crew of 3-25 professionals, ensuring the fulfillment of client needs and seamless event execution

Skills

Programming Languages:	C, Java, Verilog, Python, System Verilog, C++, Node.js
Electrical:	FPGA, Circuit Analysis/Design, Microcontrollers, Arduino, ThermoStream, Oscilloscopes, Function Generators, Power Supplies, Signal Processing
Tools & Technologies:	Ladder Logic, PLCs, Git, Linux, Agile, DevOps, LabVIEW, TestStand

Projects

Pegasus Guitar Pedal (Senior Design Semi-Finalist)
- Conducted in-depth research and design of digital effects for the multi-effect guitar pedal, focusing on DSP and MCU integration for real-time audio signal processing.
- Successfully integrated digital effects with analog circuitry, including distortion, overdrive, and boost modules, optimizing the overall audio signal chain.
- Led the team by keeping track of deadlines, coordinating meetings and helping to maintain team morale

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

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.