Cameron J. deLeeuw

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Dedicated and goal oriented Electrical Engineering graduate with over 2 years of hands on experience seeking to advance and apply skills in the design and development of embedded systems. Strong foundation in power electronics, control systems, digital and analog circuit analysis, discrete semiconductor devices (FETs, BJTs, diodes), and FPGA/ASIC development. Thrives in fast paced, dynamic environments. Demonstrated quick learner, reliable team player, clear communicator, able to perform under pressure and quickly grasp new technologies and systems.

Education

Sonoma State University (ABET accredited, California State University) Graduated: May 2025

- Bachelor of Science in Electrical Engineering

Skills

- Demonstrated strong LTSpice proficiency through multiple projects, including the design and simulation of a fully analog audio synthesizer featuring Monte Carlo simulations and transmission line analysis.
- Excellent proficiency in breadboard, perforated board, PCB, and surface mount component assembly and soldering utilizing techniques such as component tombstoning, wire lead attachments, and PCB trace tapping to perform detailed analysis across multiple systems for the development of comprehensive Bench Test Reports for power converters, optical, and communication devices
- Over 1,200 hours of hands-on experience operating multimeters, oscilloscopes, DC power supplies, waveform generators, and optical spectrum analyzers with demonstrated expertise
- Extensive experience in design and analysis of analog circuits, including soft start systems, voltage and current sensing/regulation techniques, linear and switching regulation, and CMOS latch-up protection
- Proficient experience in software development using Python, C++, Java, MATLAB, Assembly, and Verilog
- Experienced in Linux Bash scripting, internet networking, and automation
- Experienced in PCB design using Altium Designer and EasyEDA designing multiple personal and academic projects

Experience

- R&D Electrical Engineering Intern - Hamilton Company May - Aug 2024
    - Analyzed the current transfer ratio (CTR) to validate optical transducer performance after implementing selected component updates, enabling timely shipment of a critical product
    - Performed extensive analog and digital design/analysis to systems
    - Improved proficiency using switching power converters in low voltage systems (up to 48 V)
    - Gained extensive programming experience in Verilog
    - Performed and wrote Bench Test Reports and Protocols for a variety of systems
- Electrical Engineering Intern - Seminet Jul - Aug 2023
    - Performed HI-POT testing. Designed/reorganized system schematics and troubleshooting methods for use by manufacturing and service personnel
- System Prototype Developer - AlfaThermodiagnostics Sept - Dec 2021
    - Implemented prototypes using Arduino and Adafruit assemblies and their respective software languages to redesign a microcontroller-based infra-red, non-invasive, wireless temperature probe that gathers body temperature data

Electronics projects

- Developed senior project: an autonomous underwater monitoring system integrating a motorized sensor module with an unmanned surface vehicle to collect environmental data, including temperature, dissolved oxygen, and depth, for ecosystem analysis and conservation.
    - Project website: https://aquaboat.online/#
- Designed, implemented fully analog audio synthesizer
- Designed shift register, modulatable PWM, and UART communication programs on Lattice FPGA
- Engineered IoT systems with MQTT for efficient messaging and LoRa for low-power, long-range connectivity, enabling reliable data transfer to my SQL database