Lily B. Goldman

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EDUCATION

California State University, Long Beach, CA — Aug 2024 - present
Master of Science, Electrical Engineering

California Polytechnic State University, San Luis Obispo, CA — June 2023
Bachelor of Science, Electrical Engineering

SKILLS OVERVIEW

Applications: MATLAB, Simulink, AutoCAD, LTSpice, Xilinx, Linux, Cadence, ADS
Programing: Python, embedded C, Java, RISC-V and MIPS assembly language, Verilog
Hardware: soldering, breadboarding, multimeters, wave generators, logic analyzers, oscilloscopes

EXPERIENCE

Mercury Systems (Torrance, CA) — Nov 2023 – present
Test Engineer
- Executed qualification tests for new product integration including cost, scheduling and technical work
- Designated engineer for all High-Definition Video Recording devices that are in production or returned
  - Managed three different products totaling in 1,350 units shipped to customers
- Troubleshot across 6 PCBs for power, Ethernet, fiber optic, RS-232, SATA, 1553 and mechanical failures
- Communicated weekly with customers on the status of root cause of failures and their corrective actions

Kiler Ridge Farm (Paso Robles, CA) — June - Aug 2023
Farm Engineering Assistant
- Built a water flow rate monitor with WIFI communication to send email alerts for malfunctioning sprinklers
- Preformed PCB root cause analysis on malfunctioning EEPROM with a logic analyzer

Umbra (Remote) — Jan - May 2023
Digital Design Intern
- Developed a reliable CRC method for boot images on the Zybo Z7 FPGA for in flight hardware

Epirus (Los Angeles, CA) — June - Aug 2022
Electrical Engineering Intern
- Implemented Ethernet interface for FPGA communications on Digilent Arty A7 boards
- Contributed to RTL architecture in Verilog for a high-power pulsed RF device prototype
- Instantiated a Xilinx memory interface generator (MIG) for 256MB of DDR3 SDRAM external memory
- Experienced Agile development through Jira, Confluence, and Scrum

CLUB

Cal Poly Wind Power Club
Electrical Lead — June 2021 - June 2023
- Facilitated in the design, construction, and testing of a small-scale wind turbine for the 2023 and 2022 Collegiate Wind Competition (CWC)
- Led a team of 6 undergrads in the design of a high-power AC to DC circuit
  - Tested possible loads, a motor controller for AC brushless motor for power rectification and current sensing capabilities, and a buck boost converter to power the system's microcontroller
- Designed a digital control system to pitch turbine blades for maximum power production

PROJECTS

Microgrid Design for Local Farm (senior project) — June 2022 - June 2023
Honda Civic Engine Swap (personal project) — Aug 2020 - Nov 2021
- Upgraded my 1996 Honda Civic hatch with a b18c Integra GSR engine