Lila Smith

Email
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Portfolio
lila.engineer

Hardware
Altium
KiCAD
SystemVerilog
LTSpice
SolidWorks
Fusion 360 CAM
Onshape

Software
Python
MATLAB
Git
C++
ROS

Machining
CNC
3D-printing
Pick-and-place
Laser cutting
Band saw

Education

Olin College of Engineering — Needham, MA — May 2024

B.S. in Electrical and Computer Engineering (GPA: 3.92)

Awards: Olin Half-Tuition Merit Scholarship

Relevant Courses: Microelectronic Circuits; Computer Architecture; Analog and Digital Communications; Signals & Systems; Principles of Integrated Engineering

Course Asst: Discrete Math; Sensors, Instruments, & Measurements

Technical Experience

Shaper Tools — Summer 2022
Electrical Engineering Intern

- Designed/tested PCBs for factory line calibration and QA
- Developed embedded MicroPython for PCBs to interface with factory software and sensors
- Troubleshooting using root cause analysis for both hardware and software bugs
- Developed embedded C++ for lifetime cycle testing rig

Olin Baja SAE Team — Sept 2020 to present
Electrical Lead

- Designed microcontroller PCBs for Hall effect and ride height sensors communicating via CAN Bus
- Developed embedded C++ code to record Hall effect sensor and ride height sensor input for data collection
- Redesigned file system with standardized components and version control using Git for Electrical Subteam

Oshkosh Corporation: Global Product Development — Summer 2021
Electrification Engineering Intern

- Developed CAN J1939 architecture and DBC files for battery-electric prototype vehicle
- Automated datalogger downloads, reducing work time needed to receive CSVs by 75%
- Standardized wiring for charging inlets on plug-in vehicles
- Communicated with suppliers to evaluate team's potential purchases and receive technical help

Academic Projects

Ferrofluid Display: Designed, assembled, and tested electro-magnet array controller PCB in under four weeks

Low-Level Reinforcement Learning (RL): Implemented RL snake game in Python using only *pandas*, *pygame*, and *numpy*

Line-Following Robot: Wrote embedded C++ for PID control of DC-motor robot with phototransistors to follow curved tape track