

Lucy Moglia

Research Engineer @ Machinic Garden LLC
Research Fellow @ Atopile <https://atopile.io>

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SUMMARY:

Electrical engineer with robust experience in full-stack electronics development, product development, and technical research. Proven ability to manage complex projects from concept to completion. Highly self-motivated, versatile, adaptable, and curious. Embedded development, PCB design, prototype development/evaluation, reverse engineering, technical writing

PROFESSIONAL SKILLS:

Full Stack Electronics Development:

Circuit design (KiCAD, EAGLE), PCB design/assembly, prototype development, hardware revisions, firmware development,, debugging, functional/compliance testing

Research Engineering:

Teardowns, reverse engineering (electrical + mechanical), component analysis/characterization, failure mode analysis

Rapid Prototyping and Prototype Development:

PCB milling, CAD design (Fusion360, Inventor, FreeCAD), 3D printing (FDM, SLA), CNC machining, injection molding, prototype evaluation/integration

Technical Research and Writing:

Researched devices and application areas on behalf of corporate and engineering staff to assist in product development and market research, performed technical research , designed and built test setups and demo boards, authored technical papers and whitepapers @ Kyocera-AVX

WORK EXPERIENCE:

Research Engineering

Kyocera-AVX. Fountain Inn, SC- April 2023 – August 2024

Performed teardowns on a wide variety of products and systems on behalf of market research and engineering teams. Tasked with reverse engineering systems to produce schematics/models for engineering teams, researching application areas and products,, characterizing components to assess the technical requirements of various applications and suitability of various product lines to given application areas. Produced PCBs and demo boards for internal use by engineering staff in prototype evaluation and characterization. Designed demo PCBs and PCB business cards for conferences.

Engineer

Machinic Garden LLC. Liberty, SC – October 2022 – May 2023, August 2024 – Present

Developed electronics, CAD models, 3D printing processes, laser cutting/engraving processes, plating procedures etc for small batch production. Marketed products, managed website, adsense, payment, logistical services. Designed and managed automated production processes. Designed hardware/software, revised chemical and machining processes to meet customer requirements. Acquisition, implementation and validation of a wide variety of manufacturing and test equipment.

Electronics Lab Technician

Electrolux. Anderson, SC – May 2022 – February 2023

Assisted engineers in PCB and firmware development and validation. Tested prototype assemblies with a variety of UI and control boards. Performed IEC compliance testing, evaluated firmware revisions with LabVIEW, NI embedded PCs and custom Arduino based test hardware, Performed functional tests on prototype hardware and software revisions, assisted in EOL test equipment design. Utilized OrCAD, LabVIEW, National Instruments PXI, and a wide array of electrical testing equipment

Projects:

Presenter at Opensauce 2024

“Voices In the Radio”, crank powered Jacob’s ladder, and bioluminescent mushrooms

Meshtastic Client Hardware Research

Low power MPPT research, Femtofox/Luckfox Mini MPPT hat, store and forward server & personal client builds

Affiliations & Links:

Volunteer at The Cleo Bailey Experiment

2020–Present, <https://www.cleobailey.org/>

Research Fellow at Atopile

Present, PCB design, alpha toolchain testing

LinkedIn:

www.linkedin.com/in/lucy-chambers-46b257303

Personal Site, Portfolio, CV

<https://eigenlucy.github.io>