Hayden Fuller

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OBJECTIVE: Obtain a summer 2023 internship in electrical and computer & systems engineering.

EDUCATION:

- Rensselaer Polytechnic Institute (RPI), Troy, NY   GPA: 3.12   May 2025
  Bachelor of Engineering in Computer and Systems Engineering
  Bachelor of Engineering in Electrical Engineering
  Minor in Economics of Technology and Innovation

EXPERIENCE:

- Application Specific Integrated Circuit Testing and Documentation (independent Study pt2)   Spring 2023

  Worked in a team of 6 to test and document the functionality of the ASIC we designed the previous semester, implement it into a custom PCB and housing for real world use, and document the process for future groups to add to and improve upon our work.

- Topics in Integrated Circuit Design and Testing (independent study pt1)   Fall 2022

  Used Verilog to design and simulate an ASIC chip in a team of 6, working along side several local companies, including Efabless, NY Design, Lithoz, and GlobalFoundries.

PROJECTS:

- Keycard access to the Embedded Hardware Club lab: wiegand reader protocol   2022-present
  C programming, 3D modeling, soldering, breadboard wiring, multiple additions on the way
- LED matrix: a mock up circuit of what would be connected to our ASIC for the above ind. study   2022
- Handyman at home: Installing and fixing devices, rewiring things that electricians installed incorrectly, etc.
- Stereo active+passive audio mixer: Circuit design, part selection, soldering, CAD   2023-present
- Teleprompter glasses: arduino, C programming,   Summer 2023

SKILLS:

- Analog and digital circuit design and analysis, C++, Embedded Control Systems, Arduino, LTspice, Python, C, Prototyping and Testing, Linux/WSL (Ubuntu), LaTeX, Siemens NX, MATLAB, Verilog, VHDL, spreadsheets
- Troubleshooting, Learning, Analytical thinking, Problem solving, Leadership, Teamwork, Communication

HOBBIES:

- Mechanical keyboards: soldering, C programming, hardware and software debugging, github
- 3D printing and modeling: NX, learning fusion360, mechanical design and troubleshooting
- Hockey, Counter Strike: Communication, teamwork, risk and cost benefit analysis, planning, resilience

LEADERSHIP:

- RPI Embedded Hardware Club, Operations Officer   January 2022 - Present
  Event planning, hosting open shop hours, managing discord server, sending announcements
- Eagle Scout, Louisville Troop 30   February 2021
- Various Senior Leadership Position, Louisville Troop 30   February 2018 - February 2020

Attended National Youth Leadership Training	Jun 17
Troop Quartermaster	Feb 18-Aug 18
Assistant Senior Patrol Leader	Aug 18-Aug 19
Senior Patrol Leader	Aug 19-Feb 20

RELATED COURSES:

- Electric Circuits: Designed and built an automated plant watering circuit in a team of 3
- Intro to Algorithms: Analyzed and interpreted the pros and cons of different algorithms
- Foundations of CS: Proofs, set theory, probability, formal reasoning
- Data Structures: Created and used custom implementations of fundamental data structures
- Computer Components & Operations: Built circuits from the transistor level up to RAM and FSMs
- Embedded Control: Used C to program a car to do various tasks.
- Engr Graphics and CAD: Designed 3D models from technical drawings and vise versa.