# Evan Demsey

Evan@demsey.org|www.linkedin.com/in/evandemsey
Portfolio (builds, schematics, demos): www.sharkbomb.net | https://github.com/SharkbombEvan

## EDUCATION

**University of Virginia, School of Engineering and Applied Science** **Charlottesville, VA**
B.S. Electrical Engineering | GPA: 3.6 | ECE GPA: 3.9 **May 2029**
Relevant Coursework: AI Hardware, Solid State Devices, Introduction to VLSI Design, AI for Electronic Design

## WORK EXPERIENCE

**Teaching Assistant** **Fall 2026 - Present**

- Collaborate with professors of signals and systems, digital logic design, and applied circuits classes to improve teaching methods and grading standards
- Support instruction of fundamental electrical engineering topics to 225 students across 4 class periods

**Production Intern, *EarthQuaker Devices*** **Summer 2026**

- Assembled hundreds of commercial products across 3 production stages in accordance with strict, documented manufacturing and quality-control standards
- Provided feedback and resources to product managers to improve future product designs and build processes

**Audio Electronics Design and Repair Contractor, *Paul Reed Smith Guitars*** **Summer 2023 - Present**

- Selected by PRS founder and CEO Paul Smith to design, assemble, and repair studio equipment through an ongoing contract relationship from age 16
- Apply results of reverse engineering, SPICE simulations, mathematical analysis, iterative prototyping, and bench measurements to inform design decisions
- Translate customer performance goals into circuit designs and component selections
- Troubleshoot product failures to diagnose weaknesses and develop general solutions to address them

**Research Intern, *U.S. Army Research Laboratory*** **Summer 2025**

- Designed a 4-layer Carrier PCB in KiCad for a 1 mm-pitch BGA for use in an experimental research platform
- Translated electrical and mechanical requirements into schematic, footprint, routing, and fabrication files

## RELEVANT PROJECTS

**Independent Audio Equipment Design, Assembly, and Repair** **Spring 2022 - Present**

- Design and build audio equipment, including 20+ guitar pedals, 6 guitar amplifiers, and various studio equipment on commission for use by professional touring musicians
- Diagnose and repair commercial audio equipment for 3 music stores around the Washington DC metro area (50+ repairs completed)
- Reverse-engineer audio equipment circuitry to inform the design decisions of future products

## LEADERSHIP AND INVOLVEMENT

**Founder and President, *Birding at UVA Club*** **Fall 2025 - Present**

- Founded a 350-person club from the ground up with no prior bird club existing on the UVA campus.
- Secure and maintain recognition as an official Audubon on Campus chapter through collaboration with the National Audubon Society
- Organize and lead educational field trips across Charlottesville and surrounding areas

## SKILLS

**Circuit and PCB:** Analog Circuit Design, SPICE, KiCad, Schematic Capture, PCB Layout, Electronics Troubleshooting
**Embedded and Digital:** C++, Python, MATLAB, VHDL, Verilog, ESP32, Daisy Seed DSP, Digital Logic Design
**Laboratory:** Oscilloscope and Function Generator, Soldering, Rework, Signal Tracing, Circuit Characterization
**Mechanical/Manufacturing:** Fusion 360, Sheet Metal Chassis Design, 3D printing, DFM