DEVAN SOLIMAN

(925) 822-4781   **devansol@stanford.edu**   **https://devansoliman.github.io**

EDUCATION

Stanford University - **B.S. in Electrical Engineering**   Expected June 2025
Relevant Coursework:

- Object-Oriented Programming
- Very-Large-Scale Integration
- Circuits & Signal Processing
- Operating Systems
- Hardware Architectures
- Graphics
- Digital System Design
- Electricity and Magnetism
- Mathematical Foundations of Computing

SKILLS

Programming Languages: Assembly, C, C++, C#, HTML & CSS, Java, LaTeX, MATLAB, Python, Verilog
CAD: Autodesk Inventor, Cadence Virtuoso Studio, Siemens Catapult HLS, Synopsys Design Compiler, Vivado Design Suite

PROJECTS

Open Action Camera   2022 – present
Creating an open-source action camera. Building video capturing software, OLED user interface, hot-swappable Li-ion power supply, and 3D-printable, high-durability enclosures compatible with various mounting systems.

MIPS Processor   2025
Implemented a custom 5-stage MIPS processor using Verilog. Developed the processor's datapath, control unit, ALU, and memory components, ensuring proper execution of MIPS instructions. Integrated pipeline stages for increased throughput and wrote control logic for hazard handling.

RTL Rasterizer   2024
Synthesized a rasterizer integrated circuit to convert vector graphics (lines, polygons) into raster images for display devices. Features up to 64x multisample anti-aliasing and optimizations to significantly reduce the time to render each triangle, the dynamic power, and the area occupied by the compiled layout.

Bare Metal Console + Wireless Chat   2022
Built a desktop terminal running bare-metal on ARM. Programmed memory management system, drivers for input and graphics, shell, and commands. Integrated reliable two-way communication platform by writing wireless microcontroller driver, microcontroller firmware, and chatroom application.

EXPERIENCE

Board-Level and Physical Design, Open-Source Silicon @ Stanford   May 2024 – present
- Producing an integrated circuit and PCB for a convolutional neural network accelerator that identifies anatomical parts in view of a surgical endoscope

XR Research Assistant, Virtual Human Interaction Lab (Stanford, CA)   September 2023 – June 2024
- Built interactive XR environments and experiments in collaboration with Stanford researchers and the California Academy of Sciences through Virtual Reality Intensive Training Seminar (VRITS)

Analog Computing Research Assistant, Stanford School of Engineering   June 2023 – August 2023
- Developed new programming tools (language, validator, compiler) for nontraditional computational platforms aimed at high-speed and high-efficiency applications

Data Analyst Intern, Hubbub   July 2022 – September 2022
- Wrote software to monitor and visualize the prevalence of the monkeypox epidemic
- Leveraged Amazon Web Services and Microsoft Power Platform to process and store data

INTERESTS

- 3D-printed skateboards
- Mountain biking
- DIY laptops
- Tennis
- 24 Hours of Lemons
- Ultimate frisbee