

EDUCATION

Stanford University, Stanford, CA - **B.S. in Computer Science**

Expected June 2025

Relevant Coursework:

- Programming Abstractions
- Computer Systems from the Ground Up
- Graphics
- Operating Systems Principles
- Circuits
- Mathematical Foundations of Computing
- Digital System Design
- Electricity and Magnetism

EXPERIENCE

XR Research Assistant, Virtual Human Interaction Lab (Stanford, CA)

September 2023 – present

- Developing XR projects, modeling virtual environments, and analyzing data in collaboration with researchers through Virtual Reality Intensive Training Seminar (VRITS)

Analog Computing Research Assistant (Stanford, CA)

June 2023 – August 2023

- Researched and developed new programming tools (language, validator, compiler) for nontraditional computational platforms aimed at high-speed, high-efficiency applications

Data Analyst Intern, Hubbub World (remote)

July 2022 – September 2022

- Developed and operated software to create detailed visualizations tracking the monkeypox epidemic
- Worked with cloud services and automation tools to process and store data

Retail Sales Associate, Staples (Concord, CA)

July 2021 – July 2022

- Multitasked on cashier, sales, and merchandising responsibilities
- Helped customers find products and solutions to tech and efficiency problems

Cofounder / Chief Technical Officer, WAVE. (Berkeley, CA)

June 2019 – July 2019

- Cofounded WAVE. through startup incubator in a team of four
- Prototyped weather-resistant sensors for waste management and pollution reduction
- Programmed autonomous waste level sensing and wireless data reports

SKILLS

Programming Languages: Assembly, C, C++, C#, HTML & CSS, Java, LaTeX, Python, Verilog

Prototyping: CAD, 3D printing slicers, Vivado Design Suite

Digital Media: Adobe Lightroom, Premiere Pro, Photoshop, Blender, Unity Engine

Productivity: GitHub, Google Workspace, Microsoft 365

Amazon Web Services: Lambda, DynamoDB, SageMaker

PROJECTS

RTL Music Player

2023

Programmed an FPGA into a music player. Player read notes and time values from a ROM and generated sine waves to send to an audio output in real-time. Supported combining simultaneous notes into chords. Expanded functionality included track selection, fast-forward, and rewind.

ActionPi

2022 – present

Creating an open-hardware action camera. Programming capturing software that can shoot photo and video simultaneously. Designing smart LiPo-based power supply. Modeling and 3D printing high-durability enclosures compatible with a range of mounting systems. (github.com/devansoliman/ActionPi)

Bare Metal Console + Wireless Chat

2022

Built an ARM-based interactive console without an operating system. Programmed memory management system, drivers for input and graphics, shell, and commands. Added a reliable two-way communication platform by writing a Wi-Fi microcontroller driver and firmware.