Ethan **Plumb**

Software Engineer · Computer Systems Engineer

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Summary

I am a Computer Systems Engineering student at Arizona State University, with a focus in Cyber Security, planning to graduate in May of 2023. In my free time, I enjoy playing music in a metal band called Sinistra Sub Dextra, hiking, and going to local concerts.

Work Experience

Keysight Technologies   *Santa Rosa, California*

Intern Technician II   *June 2020 - Aug. 2020 May 2022 - Present*

- Won Keysight's 2022 Hackathon with the SkyFox team by developing a payload for the Alta X drone to provide aerial spectrum analysis solutions. Personally developed the networking stack, flight stack, and webapp backend.
- Currently upgrading Graffy to be developed on a modern toolchain.
- Designed and manufactured the Hotpi PCB: a board containing 6 thermocouple-to-digital converters communicating to a Raspberry Pi via the SPI protocol. Currently creating a webapp to control the measurements.
- Manufactured spreadsheets for the Marketing department to identify the competitive comparison of individual products and processes.

ASU Research Enterprise   *Tempe, Arizona*

Student Developer   *May 2021 - July 2021*

- Developed and designed cybersecurity labs to teach Navy ROTC students the Linux command line, AWS System Administration and Cloud Computing, Drone/WiFi hacking, Penetration Testing Tools and Techniques, and Open Source Intelligence (OSINT).
- Created and managed secure and scalable AWS environment for military affiliated students.

Education

Arizona State University   *Tempe, Arizona*

B.S. in Computer Systems Engineering - G.P.A. 3.70   *August 2019 - December 2023*

Core Classes:

Fall 2022	**Computer Networks**, Theoretical and hands-on experience with Networking.	*ASU*
Fall 2022	**Computer Systems Security**, x86 and C programming, binary exploitation, and full-stack hacking.	*ASU*
Fall 2022	**Embedded Microprocessor Systems**, Building a robot controlled by a mips processor. General embedded systems.	*ASU*
Fall 2021	**Data Structures and Algorithms**, Writing and analyzing time-complexity for data structures and algorithms.	*ASU*
Fall 2021	**Design and Synthesis of Digital Hardware**, FPGA design. Used verilog to create a MIPS processor.	*ASU*
Summer 2021	**Programming for Computer Engineers**, Writing bash, using git and Linux, developing and performing memory management in C and C++	*CGCC*

Co-Curricular Activity

Linux Users Group at ASU   *Tempe, Arizona*

Core Member & President   *August 2019 - May 2022*

- Managed and organized a group of 700+ ASU students and taught them Linux tools and concepts.
- Made lessons and workshops to teach Bash/Linux, presented talks on specific FOSS tools, and gained experience with Linux by helping others troubleshoot.
- Rewrote the club's constitution.
- Created and grew a positive community for FOSS enthusiasts.

DevilSec (Cybersecurity Club)   *Tempe, Arizona*

Member, Treasurer   *August 2019 - May 2021*

- Provided training for an wide variety of topics within Cyber Security.
- Led meetings in which members of the club try to solve boxes on the HackTheBox platform together.
- Processing Funding requests, budgeting, and ensuring that all monetary logistics are handled.
- Gained experience with pen-testing, network security, webapp security, cloud security, physical security, and networking.