Mitchell Zakocs

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Relevant Experience

Arizona State University SEFCOM Lab • Computer Security Researcher • Tempe, AZ   *Jun 2021 - Present*

- ➔ Competing on a team for DARPA's AIxCC aiming to combine LLM research with low-level security research
- ➔ Creating tools to find and exploit vulnerabilities in critical software (Linux kernel, Cellular basebands, Chromium)
- ➔ Participated in CTF competitions with Shellphish, mainly solving exploitation and reverse-engineering challenges

Tesla • Product Security Engineer Intern • Tempe, AZ   *May 2024 - Aug 2024*

- ➔ Audited remote attack surfaces on vehicles and wrote 10+ advanced fuzzers for critical wireless/radio firmware
- ➔ Developed and deployed critical Linux software exploit mitigations for Optimus and other AI platforms
- ➔ Reviewed pull requests, managed Jira tickets, and assisted with design decisions regarding build infrastructure, backend services, and application development

NASA • Software Simulation Engineer Intern • Greenbelt, MD   *May 2022 - Aug 2022*

- ➔ Interned on the ILLUMA-T team working with laser/optical communications on the International Space Station
- ➔ Tasked with writing a Python simulator for the payload and integrating it with their custom flight control software
- ➔ Used PyQt, CFDP, multithreading, and extensive design planning to build performant and reliable software

Highlighted Projects

Qualcomm Baseband Scripts (github.com/mzakocs/qualcomm_baseband_scripts)   *2023*

- ➔ Released 10+ advanced Python tools for reverse-engineering firmware from Qualcomm cellular baseband SoCs
- ➔ Over 150 stars on GitHub; contains knowledge and techniques found nowhere else on the internet

Coconut CubeSat (Currently Private, Open Sourced in March 2025)   *2022-2024*

- ➔ Volunteering as the lead developer for the satellite's firmware team at the ASU Interplanetary Initiative
- ➔ Wrote honors undergrad thesis on simulating, fuzzing, and unit-testing the flight software

Education & Certifications

Arizona State University, Ira. A Fulton & Barrett Honors College • Tempe, AZ   *2021 - 2025 (Current Senior)*

- ➔ BS Computer Science, Dean's List, 3.88 GPA
- ➔ Extracurriculars: **Researcher** @ SEFCOM Security Lab; **Officer** @ ASU Hacking Club; **Member** @ Shellphish Hacking Team; **Software Lead** @ Sun Devil Satellite Laboratory; Member @ Hacker Devils

Awards & Achievements

Flinn Scholar: 1/20 students selected from nearly 1000 applicants to receive a prestigious full-ride scholarship
Seal of Biliteracy: Recognized fluency in Spanish through difficult standardized language & culture assessments
Study Abroad Summer 2023: Participated in international literature program in Switzerland, Germany, and France
Pwn2Own 2023: Toronto WyzeCam Winner (1 vuln, w/ SEFCOM), Vancouver Tesla Model S Entrant (11 vulns, solo)

Relevant Skills

Languages: C, C++, Python, Rust, Assembly (x86/ARM/MIPS/PPC/etc), JavaScript, Java, Go
Technologies: AFL, libFuzzer, syzkaller, QEMU, glibc, Linux Kernel, IDAPython, Unicorn, Capstone
Data Management: PostgreSQL, SQLite, MongoDB, BigQuery, REST, Looker, dbt, Apollo, GraphQL
Miscellaneous: IDA Pro, Ghidra, gdb, pwntools, Git, GitHub, Kubernetes, vim, LLVM, Software Exploitation