Giovanni Paladino

giovanni.p.paladino@gmail.com — 520-424-6354 — giopdev.github.io/ — github.com/giopdev

EDUCATION

Arizona State University May 2026
B.S. Computer Science — 4.0 GPA
Relevant Coursework — Computer Systems Security, Computer and Network Forensics, Operating Systems

RESEARCH

ASTeRiSC Research Lab — Advised by Professor Adil Ahmad May 2025 – Current
IsolatedGaming (IsoGame)
A systems solution for mitigating cheating in games using secure VMs and performant graphics virtualization.

- Designed a **Linux** kernel driver in **C** for bi-directional memory shadowing to share **Vulkan** objects.
- Created **Vulkan** and **OpenGL** applications to intercept API calls for analyzing performance versus **virtio**.
- Regularly prepare, present, and review detailed technical talks and papers on systems security research topics.

PROFESSIONAL

Prescio Consulting — Systems and Network Intern Oct 2022 – Current

- Utilized **Bash** scripting to diagnose network latency issues affecting remote engineers access to workstations.
- Provided network and server support on **Linux** and Windows environments for a remote engineering team.
- Designed, configured, and optimized bare-metal systems for Machine Learning and Data Science.

PROJECTS

Enhanced Flashlight Glow — 15,000+ Users and 99% Positive Ratings Dec 2024

- Leveraged a **Lua** modding API to improve lighting and enhance user accessibility in a popular Steam game.
- Continually iterated the software by quickly responding to user feedback and feature requests.
- Focused on correctness and performance by verifying effects with debuggers and using O(1) data structures.

eBPF Vulkan Tracer June 2025

- Developed a custom **eBPF** tracer for understanding the **Linux** graphics pipeline by tracing a **Vulkan** program.
- Leveraged **Python** and **eBPF** to visualize the path of syscalls through a user space stack-trace in **Vulkan**.

Home Lab and Cloud Server Hosting June 2023 – Ongoing

- Deployed headless **Ubuntu** instances and maintain a bare-metal system for serving a variety of services.
- Disassembled and repaired a damaged laptop to use as a headless server running **Linux** and Windows.
- Automated startup, repair, and backups for servers by using **systemd** services with **Bash**.

TEACHING

Teaching Assistant — Programming Languages Jan 2024 – Current

- Taught groups of 7+ computer science students **C** and **C++** programming twice a week in-person.
- Lectured on technical topics such as pointers, object references, and program memory.
- Supported students one-on-one, teaching coding and debugging in **C** and **C++** with **GDB** and **Valgrind**.

SKILLS

Languages and Libraries: C, C++, Vulkan, eBPF, OpenGL, Python, Bash, Java, Lua, Javascript
Tools, Databases, and OS: QEMU, Linux, Git, Neovim, LaTeX, IDA, GDB, PostgreSQL, Docker