

# Giovanni Paladino

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## EDUCATION

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Arizona State University  
B.S. Computer Science – 4.0 GPA

May 2026

## TEACHING

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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**.

## RESEARCH

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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

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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

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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**.

Server Hosting  June 2023 – Ongoing

- Utilized **Oracle Cloud Infrastructure** to deploy many headless **Ubuntu Server** instances.
- Maintained VM security, networking, monitoring, and automated processes with **Bash** and **Python**.

## SKILLS

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