

NEFELI GEORGILAS

nefeli.georgilas@unlv.edu | Las Vegas, NV | Portfolio

Education

University of Nevada, Las Vegas

Las Vegas, NV

Master of Science in Cybersecurity (GPA: 4.0 / 4.0)

Jan 2026 – Dec 2026 (Expected)

- **Research Focus:** State-aware analysis of desynchronization vulnerabilities in the PX4 flight stack

University of Nevada, Las Vegas

Las Vegas, NV

Bachelor of Science in Computer Science

Aug 2023 – Dec 2025

Technical Skills

Technologies & Systems: C++, C, Python, x86 Assembly, RTOS, MAVLink protocol, Linux Kernel

Tools: Ghidra, Binary Ninja, Address Sanitizer, AWS

Research Experience

Real-Time Intelligent Systems (RTIS) Lab – UNLV & NNSS

Las Vegas, NV

Research Assistant (Under Dr. Brendan Morris)

May 2026 – Present

- Evaluate and benchmark classical and SOTA machine learning approaches.
- Conduct comprehensive literature reviews.
- Create and maintain a real-time sensor fusion pipeline.

UNLV & Department of Energy

Las Vegas, NV

Research Assistant (Under Dr. Tessler and Dr. Modekurthy)

Dec 2025 – Aug 2026

- Independently conduct vulnerability research on PX4 Autopilot, including the MAVLink protocol and NuttX RTOS.
- Analyze performance and usability metrics of the Starling 2 Max GPS-denied development drone and VOXL 2.
- Present 40-minute technical briefings on topics including Policy-Guided Fuzzing (PGFuzz) and Exploit Pathology (Lancet).

Presentations

DEF CON 34 Aerospace Village

Las Vegas, NV

Speaker

Aug 2026

- Presented *Racing PX4: Memory Corruption and Timing Vulnerabilities*.
- Discovered and examined a state desynchronization flaw in the MAVLink logging subsystem (MavlinkULog), resulting in a Denial-of-Service.

Teaching Experience

University of Nevada, Las Vegas

Las Vegas, NV

Incoming Part-Time Instructor

Spring 2027

- Design 16-week graduate-level course content for **CSEC 722: Trusted Software Systems**.
- Create CTF-style challenges, lectures, and projects to teach reverse engineering, fuzzing, and symbolic execution.

University of Nevada, Las Vegas

Las Vegas, NV

CTF Team Lead

Mar 2025 – Dec 2025

- Led technical training sessions on Reverse Engineering, Binary Exploitation, and Forensics for a core team of 6 students.
- Authored a structural “Guide to Binary Exploitation” adopted by Layer Zero to train 800+ members in memory corruption techniques and exploit development.

University of Illinois, Chicago (Capture the Flame)

Remote

Challenge Creator & Board Member

Feb 2025 – Present

- Design binary exploitation challenges across Beginner and Advanced tracks, spanning simple buffer overflows, format strings, and Sigreturn-Oriented Programming (SROP) exploits.

Grants

UpToStudy

Co-Founder

Engelstad Foundation

\$150,000 Grant — Dec 2023

- Secured a \$150,000 Big Idea Challenge Grant to fund a centralized educational application.
- Directed foundational project architecture, managed seasonal hiring lifecycles, and conducted comprehensive code reviews.
- Mentor an apprentice to independently perform security audits and author vulnerability reports.

Awards, Competitions & Certifications

Competitions & Honors:

- C2Society CTF (1st Place, Mar 2026)
- NCAE Regionals (1st Place, Mar 2026)
- Gasparilla CTF (1st Place, Jan 2026)
- DC207 Hacksgiving CTF (2nd Place, Nov 2025)
- Dean's List (Dec 2025)

Certifications:

- Practical Junior Penetration Tester (PJPT, TCM Security — Feb 2026)
- FAA Part 107 Remote Pilot (sUAS — Dec 2025)
- AWS Certified Cloud Practitioner (Oct 2025)