

# Anthony Cagliano

Developer | Networking | Cybersecurity

917-613-3144 | acagliano97@gmail.com | cagstech.com | linkedin.com/in/acagliano | github.com/cagscalclabs

## SUMMARY

Technical professional with experience in web development, Linux systems, networking, AI-assisted tooling, and low-level software projects. Skilled in troubleshooting, system integration, secure development practices, cryptography, constrained-device engineering, and technical documentation.

## SKILLS

**Web Development:** HTML, CSS, JavaScript, PHP, WordPress

**Data & Serialization:** SQL, XML, JSON

**Programming:** C, eZ80 Assembly, Python, Shell Scripting

**Systems:** Linux Administration, TCP/IP Networking, Embedded/Low-Level Development, Toolchains + Build Systems

**Security:** Cryptography, Secure Development, TLS / PKI Concepts, Threat Modeling, File Integrity & Trust Systems

**Engineering & Analysis:** Debugging, Code Review, Technical Documentation, Performance Optimization, Memory-Constrained Systems, Open Source Collaboration

## PROJECTS

2025 – Present

### Confidential Embedded Educational Platform

#### Open Hardware & Security Architecture Initiative

- Collaborating on the design of an open programmable educational handheld platform using non-proprietary hardware and a custom operating system stack.
- Developing secure boot, flash encryption, root-of-trust handling, and cryptographically enforced runtime profiles for constrained embedded hardware.
- Researching embedded trust models, entropy handling, secure update/signing workflows, and low-resource TLS integration strategies.
- Coordinating across hardware, OS/kernel, networking, and cryptography domains within a small specialized engineering team.

2025 – Present

### CagsCalcLabs

#### Embedded Networking & Security Lab (TI-84+ CE)

[github.com/cagscalclabs](https://github.com/cagscalclabs)

- Open-source lab for networking, security, and performance-focused software on constrained systems, with projects targeting the TI-84+ CE.

#### lwIP-CE

##### Embedded TCP/IP + TLS Stack | 2023 – Present

- Ported and integrated an embedded TCP/IP stack for the TI-84+ CE, including USB Ethernet drivers, memory management, and TLS 1.3 support.
- Implemented protocol tests, cryptographic validation, entropy analysis, and timing-consistency profiling for constrained hardware.
- Authored a public work-in-progress technical whitepaper documenting architecture, networking, cryptography, and TLS implementation.

#### CryptX

##### Embedded Cryptography Suite

- Ported cryptographic primitives and key handling modules in C for the eZ80/TI-84+ CE platform, including AES, RSA, PBKDF2, SHA-256, HMAC, PKCS#1, PKCS#8, and SEC1.
- Collaborated on entropy collection, conditioning, profiling, and optimization for resource-constrained cryptographic operations.

**Blast File Integrity Software**  
**File Integrity & Signature-Scanning Utility**

- Developed lightweight SHA-256-based integrity tracking and primitive signature scanning for constrained calculator software environments.

## EXPERIENCE

2021 – Present

**CagsTech Services | New York, NY**  
**Self-Employed, Founder | February 2021 – Present**

- Build and maintain Linux-hosted services and websites with operational hygiene: updates, backups, monitoring, and incident-style troubleshooting.
- Prototype AI- and LLM-assisted tooling and log-analysis workflows using llama.cpp, Qwen, IsolationForest anomaly detection, and Drain3 log template mining.
- Apply security-minded development practices: least privilege, input validation, authentication/session safety, secure configuration defaults.
- Develop and maintain embedded security/networking software initiatives via CagsCalcLabs.
- <https://cagstech.com>

2021 – 2026

**Apple, Inc | Queens Center**  
**Technical Expert | September 2021 – January 2026**

- High-volume technical triage and troubleshooting across iOS devices, wearables, and consumer hardware/software.
- Diagnosed complex issues using structured workflows and tools/logs; documented findings and actions clearly.
- Handled sensitive customer data with privacy-first practices; communicated root cause and remediation during escalations.

**Career Experience program | June 2024 – November 2024**

- Contributed to internal software development projects.
- Refactored an internal tool's hard-coded error handling into a modular callback-based system using Python, turning a single error enhancement request into a scalable redesign accepted for larger integration.

2024 – Present

**This Is Our Story**  
**WordPress Web Developer / Website Maintainer | 2024 – Present / As Needed**

- Provided PHP development and as-needed maintenance for a public-facing nonprofit website.
- Supported troubleshooting, backend updates, and ongoing site reliability.

2015 – 2025

**Rural Development Leadership Network | New York, NY**  
**Office Assistant, Web Developer | March 2015 – September 2025**

- Organized and updated website content within guidelines provided; implemented improvements and maintained site reliability.
- Maintained physical files and digitized records; ensured records remain accurate and accessible.
- Collaborated with leadership to complete projects within specific timelines; maintained financial record accuracy.

2017 – 2020

**NY Code and Design Academy | Generation Code | New York, NY**  
**STEM / Coding Instructor | September 2017 – March 2020**

- Instructed students in STEM electives including robotics, web development, and programming fundamentals.
- Guided hands-on coding projects, debugging, and technical problem-solving in a classroom environment.
- Adapted technical lessons for varying skill levels and supported classroom tools, robotics kits, and

2010 – 2020

development environments.

## ClrHome Productions

Developer, Site Administrator | March 2010 – 2020

- Led software design and development for graphing calculators, including games, security utilities, and STEM helpers.
- Designed, implemented, and monitored web pages for continuous improvement and stability.
- Project/site remains publicly available; active maintenance has since ended.
- <https://clrhome.org>

## TOOLING EXPERIENCE

**AI & Machine Learning:** llama.cpp, OpenAI Codex, Claude Code, Qwen, IsolationForest, Drain3

**Security & Analysis Tooling:** Semgrep, Suricata, PSAD, rkhunter, OPNsense, nftables, pf, Wireshark, Fail2ban, AIDE

## CERTIFICATIONS

Career Essentials in Cybersecurity – Microsoft

Cybersecurity Analyst Professional Certificate – IBM

Cryptography I – Stanford

## PUBLICATIONS

**Whitepaper: lwIP-CE w/ TLS** | CagsCalcLabs

[github.com/cagscalclabs/lwip-ce/releases/tag/whitepaper-latest](https://github.com/cagscalclabs/lwip-ce/releases/tag/whitepaper-latest)