

Sean Conley

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EDUCATION

George Mason University, Fairfax, Virginia
Bachelor of Science, Computer Science

Expected May 2027

Relevant Coursework: Data Structures, Object-Oriented Programming, Computer Systems Programming, Software Engineering, Database Concepts, Mobile Application Design, Software Testing/Maintenance, Secure Programming & Systems

TECHNICAL SKILLS

- Languages & Scripting: Java, Python, C, SQL, x86-64 Assembly
- Security & Networking: Wireshark, Snort, Nmap, OpenSSL, hping3
- Cloud & DevOps: AWS, Docker, CI/CD Pipelines, Git
- Databases: MySQL, Oracle SQL, MongoDB, Firebase DB
- Systems & Debugging: Unix/Linux, macOS, Windows, GDB, Valgrind

CERTIFICATIONS

- CompTIA Security+ (SY0-701) January 2026
- Certified Palantir Foundry Aware Professional April 2026

PROJECTS

Network Attack Detection & Intrusion Analysis (Wireshark, Snort, Nmap, hping3, Docker, Kali Linux) May 2026

- Deployed Snort IDS on Kali Linux, simulated ICMP, UDP, and TCP SYN flood attacks using Nmap and hping3, and authored custom detection rules, achieving 100% alert accuracy
- Performed Wireshark packet analysis to verify spoofed IP behavior, protocol anomalies, and network-layer responses

TLS Protocol Implementation & MITM Attack Simulation (Python, Wireshark, OpenSSL, Docker, Kali Linux) April 2026

- Built a TLS client-server system in Python with X.509 certificate verification, SANs, and a root CA; established PKI trust chains verified in Firefox
- Implemented a multithreaded HTTPS proxy to simulate a Man-in-the-Middle attack, intercepting encrypted traffic by exploiting a compromised CA

Encryption & Digital Signature Implementation (Python, OpenSSL, Kali Linux) March 2026

- Implemented a full RSA pipeline, key generation, encryption, decryption, signing, and verification, using 128-bit primes and OpenSSL
- Demonstrated RSA's avalanche effect by comparing signatures across minimally modified messages and confirmed that a 2-bit corruption fully invalidates signature verification

EXPERIENCE

TIC Summer Camp, McLean, Virginia

June 2025-August 2025

Programming Counselor

- Collaborated with 20+ staff; instructed and mentored 10-12 campers per session in Python, Java, and C, covering object-oriented programming, encapsulation, and inheritance

ACTIVITIES & HONORS

GMU M2 Club Ice Hockey, President and Captain

February 2025-Present

- Directed 20+ athletes and staff, coordinated logistics, scheduling, rules compliance, equipment acquisition, and hiring
- Established a team website averaging 500 monthly views and integrated Stripe for digital payments

GMU M2 Club Ice Hockey, Treasurer and Alternate Captain

September 2023-February 2025

- Managed a \$75,000 budget, fundraising, and non-profit tax compliance; established the team's first bank account

Scouts BSA, Eagle Scout

April 2023

- Managed the construction of a community nature trail; earned 33 merit badges and held multiple troop leadership roles