

William M. Rosenthal

+1 (908) 577-7253 • willmrosenthal@outlook.com • [linkedin.com/in/willmrosenthal/](https://www.linkedin.com/in/willmrosenthal/)

- Active U.S. Secret Clearance -

Education

Cornell University, College of Engineering

Bachelor of Science in Computer Science, Minor in Policy Analysis and Management

GPA: 3.72, Track: Security & Trustworthy Systems

Ithaca, NY

Expected May 2028

Work Experience

NATO Communications and Information Agency (NCI Agency)

The Hague, Netherlands

Cyber Security Intern – NATO Cyber Security Centre

March 2026-Present

- Supporting the Cyber Resilience by Design innovation team to further the evolution of next-generation networks including 6G, satellite communications, cloud-edge architectures, and expanding use of AI in cyber operations.
- Acting as direct NCI Agency support to the Mission Assurance experiment, which aims to develop and validate a framework that aggregates runtime integrity signals from independent subsystems into a composite trust score.
- Contributing to the NATO Integrated Cyber Defence Centre (NICC) initiative to enhance TBCE documentation, describe technical architecture, support internal and external communications, and consolidate stakeholder feedback.

Aerospace ADVERSARY Laboratory

Ithaca, NY

Undergraduate Cybersecurity Research Assistant

August 2024-December 2025

- Co-authored an **IEEE Access** paper on [Hybrid Space and Submarine Architecture](#) (funded by NATO SPS), to propose a subsea and commercial-satellite failover to preserve connectivity during submarine cable disruptions.
- Built the core Python/Ethereum simulation with Ganache to model smart-contract driven rerouting of essential traffic from undersea links to satellite networks (and their destinations) under adversarial and natural outage scenarios.
- Designed and implemented algorithms for smart-contract execution, data-request allocation, and fault-tolerant rerouting to improve continuity and security of communications during failover; paper presented at **IEEE ICC 2025**.

Samaritan Scout

Springfield, NJ

Co-Founder, Chief Technology Officer

April 2023-June 2025

- Produced an automated “Extract, Transform, Load” pipeline that made research time for non-profit organizations approximately 5× faster, scaling the platform to 14,000+ volunteer opportunities across all 50 states.
- Implemented PostGIS-powered geographic search and a unified PostgreSQL + vector database (pgvector) to optimize location + semantic filtering; integrated an AI-driven filter removing 98% of pay-to-volunteer listings.
- Onboarded and led a team of 5 back-end engineers, implementing Agile development practices to build scalable infrastructure supporting real-time volunteer opportunity discovery.

Extracurricular Activities

Cornell Cybersecurity Club

Ithaca, NY

Former President

August 2023-Present

- Revamped the club, expanded membership to 80+ members with 90-minute weekly meetings, and made a website.
- Managed a team of 9 officers, overseeing new member education and hosting tech workshops on key security topics.
- Led the club in 5+ “Capture-the-Flag” and “Blue Team” competitions per semester, including in-person competitions like ISTS in Rochester, and planned guest speaker events featuring FBI, CIA, Cornell alumni, and industry experts.

Phi Kappa Tau – Alpha Tau Chapter

Ithaca, NY

Vice President of Alumni Relations

March 2023-Present

- Designed and managed a seasonal newsletter detailing undergraduate events, philanthropy initiatives, and house improvements, reaching over 700 alumni while reducing budget expenditure by 40% through in-house production.
- Organized major alumni events, including a New York City reunion and a Cornell Family Weekend barbecue.
- Established an Alumni Career-Pairing system that connects new members with alumni for professional networking.

Skills, Certifications, Volunteering & Interests

- **Programming & Database Technologies:** Python, Java, C++, Ruby, HTML5, CSS3, SQL, PostgreSQL, NoSQL
- **Developer Tools & Environments:** Git, GitHub, VS Code, Linux, Windows, Jupyter, LaTeX, Google Earth Engine
- **Certifications:** CompTIA ITF+, Microsoft Office Specialist (2016), Java Oracle Certified Foundations Associate
- **Volunteering:** Arboretum Groundskeeper, Cornell Outing Club Officer, High School Peer Tutoring and Advising
- **Interests:** Cybersecurity, Information Policy, National Parks, Natural Disasters, Skiing, Backpacking, Comic Books