

Nicholas White

nicholas@ncwht.com | ncwht.com | [linkedin.com/in/ncwht](https://www.linkedin.com/in/ncwht)

Available: July - December 2026 | Boston, MA

EDUCATION

Northeastern University :: *Khoury College of Computer Science* Boston, MA
Candidate for an M.S. in Cybersecurity (**PlusOne Program**) Expected: May 2028
Candidate for a B.S. in Cybersecurity with a minor in Political Science Expected: May 2027

- Cumulative GPA: 4.0 / 4.0; Dean's List all semesters
- Relevant Coursework: System Security, Network Security, Linux Kernel Security, Graduate Computer Systems

EXPERIENCE

Cybersecurity Research Co-Op :: *Trusted Science and Technology* July 2025 – December 2025

- Independantly built an automatic static analysis toolchain to translate exploit chain source code into SMT and timed automata models, dramatically reducing modelling time over manually constructed models
- Developed a DNSSEC emulation environment with multi-zone DNS topologies for mobile driver's license security research
- Presented tooling demonstration to DARPA program managers and stakeholders at quarterly evaluation event

Research Assistant :: *Mon(IoT)r Research Group at Northeastern University* Dec 2024 – May 2025

- Analyzed network traffic from IoT devices to investigate year-over-year shifts in network traffic
- Automated data extraction and formatting to streamline current and future analysis

Teaching Assistant :: *Khoury College at Northeastern University* Aug 2024 – Present

- Fundamentals of CS (Fall 2024) & Algorithms and Data (Spring 2026)
- Guiding students through hands-on lab sessions, and providing one-on-one technical assistance to students

Visiting Researcher :: *United Nations Office in Geneva* Jul 2024

- Developed a research paper investigating the UN's global Digital Divide metric (ITU ICT Development Index)
- Met with diplomats, leaders, researchers, & policymakers on the forefront of disarmament, multilateralism, & other fields

PROJECTS

DNS Server :: *Rust, UDP* Apr 2025

- Designed and implemented a recursive server that caches authoritative responses and handles thousands of requests in parallel
- Designed an authoritative server that handles queries and serves information from a given zone file

Reliable Transport Protocol :: *Rust, UDP* Mar 2025

- Designed and implemented a custom reliable bytestream transport protocol on top of UDP
- Supports congestion control, corruption detection, automatic retransmission, and more

BGP Router :: *Rust, UDP* Feb 2025

- Developed a software implementation of a BGP router that quickly routes and modifies messages between ports
- Designed a custom trie structure for the routing table that supports link aggregation and withdrawal messages

QThread :: *C, Assembly* Nov 2024

- Implemented a userspace threading library in C, modeled after the POSIX pthread library
- Supports joining threads, mutex lock & unlock commands, & CV wait, signal, and broadcast commands

TECHNICAL DETAILS

Research Interests: Digital Privacy, System Security, Network Security, Cryptography
Tools: Wireshark, Ghidra, Z3, Uppaal, CBMC
Languages: Rust, Python, Java, C, C++, Racket

HOBBIES

Homelabbing

- Self-hosting a Minecraft server, Media server, & more on TrueNas Scale with secure remote access

Cyberdefense Competitions

- Implementing modern security practices on vulnerable systems while demonstrating impact to stakeholders within time limits