Nicholas White

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Available: July - December, 2025 | Boston, MA

EDUCATION

Northeastern University Khoury College of Computer Sciences

Boston, MA

Candidate for a Bachelor of Science in Cybersecurity

Expected Graduation: May 2027

- Candidate for a Minor in Political Science at the College of Social Sciences & Humanities
- Cumulative GPA: 4.0 / 4.0; Dean's List all semesters
- Notable Coursework: Graduate Computer Systems, Graduate Computer Networking, Object Oriented Development, Fundamentals of Cybersecurity, Discrete Structures

TECHNICAL DETAILS

Research interests: Digital Privacy, System Security, Network Security, Cryptography

Languages: Rust, Java, C, Python, Racket

EXPERIENCE

Research Assistant - Mon(IoT)r Research Group at Northeastern University

December 2024 - Present

- Analyzing network traffic patterns from IoT devices to identify potential privacy risks & security vulnerabilities, with a specific focus on smart home device communication over IPv6 & the Matter protocol
- Developing & implementing analysis tools to process & evaluate network captures, utilizing security tools like Wireshark
- Coordinating research efforts with other contributors to effectively address complex issues

Teaching Assistant - Accelerated Fundamentals of CS 1 at Northeastern University

August - December 2024

- Guided students through hands-on lab sessions, developing their systematic approach to problem-solving
- Provided one-on-one technical assistance to students, effectively communicating complex concepts & strategies
- Evaluated technical assignments with detailed feedback, emphasizing systematic design & problem-solving approaches

Visiting Researcher - United Nations Office in Geneva

July 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

SELECT PROJECTS

QThread (C) - code available upon request

November 2024

- Developed 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

F1FM (Rust, Iced) - code available here

August 2024 - Present

- Designing a desktop GUI to automate a personal Formula One fantasy sports league
- Built to download race results, calculate scoring, & update team positions automatically

TMI (Rust) - code available here

May - August 2024

- Designed a command line interpreter for the BF esoteric language
- Engineered customizable memory, including the size, count, & signed status of memory cells

Air Share (Rust) - code available here

October 2023 - April 2024

- Developed a CLI for transferring files over a TCP connection using a custom, encryptable protocol
- Built for P2P, with planned upcoming development for a relay server to run on an Oracle free VPS

HOBBIES

Homelabbing

2019 – Present

- Self-hosting a Minecraft server, Media server, & more on TrueNas Scale, implemented with modern security practices
- Deploying a Wireguard VPN & dynamic DNS running on a Raspberry Pi Zero for secure remote access

Mock Trial

September 2023 – Present

- Coordinating prep materials with a team of 8-10 people for 5+ tournaments per year
- Communicating with the team in rounds & adapting quickly to objections, case theory, & rulings