Sean Finch

finch.s@northeastern.edu | (714) 930-5819 | seanfinch.com | linkedin.com/in/sean-finch-g | github.com/seanfinchg
Available May - December 2025 | Local: Boston MA | Permanent: Southern California | Open to Relocation

Education

Northeastern University, Boston MA **|** Khoury College of Computer Sciences — September 2023 – Present
Candidate for a Bachelor of Science in Cybersecurity, Minor in Music — Expected Graduation May 2027

Relevant Coursework: Systems Security, Computer Systems, Network Fundamentals, Object-Oriented Design, Algorithms and Data, Discrete Structures, Foundations of Cybersecurity, Fundamentals of Computer Science 1 & 2

Activities: Northeastern Electric Racing, CTF Club, OASIS, Northeastern University Choral Society (Vice President Spring 2025), Alpha Phi Omega, Cheese Club, Tabletop Roleplaying Society, Huskies Outdoors Club

Technical Skills

Operating Systems/Software: Tenable, Qualys, Elastic, Git, Proxmox, Ubuntu, TrueNAS SCALE, Tailscale, Caddy, Docker, Wireshark

Cybersecurity: SIEM, Incident Response, Vulnerability Assessment, VPN, System Administration, Virtualization, Threat Intelligence, Identity and Access Management (IAM), Cryptography, Symmetric and Asymmetric Encryption, Penetration Testing, Code Injection

Languages: Java, Kotlin, TypeScript, JavaScript, HTML, CSS, Python, C++, C, x86 Assembly, SQL

Libraries/Frameworks: JUnit, React.js, Node.js, Express.js, Tailwind, Prisma, Swing, FUSE

Experience

Northeastern University
Mechanical and Industrial Engineering IT Support, Boston MA — September 2024 – Present

- Administered devices for the Mechanical and Industrial Engineering Department, enabling optimal performance
- Configured and maintained software on departmental devices, enhancing reliability and minimizing disruptions

Eco-Representative at Reuse Depot, Oakland CA — January 2024 – April 2024

- Enhanced product tracking system in Excel with comprehensive formulas, ensuring accurate sales tracking
- Implemented a new system for efficient product sorting and stocking, reducing retrieval times and increasing customer flow

CENIC
Cybersecurity Intern, La Mirada CA — May 2024 – August 2024

- Audited security scans for vulnerabilities within CENIC, assigning tickets and improving overall system and device security
- Documented security processes and software usage in Confluence, enhancing team collaboration and compliance
- Captured and verified detailed DDoS metrics on the CalREN Network, bolstering threat detection and response
- Gathered KPI metrics on the effectiveness of initiatives, demonstrating improvements in response times and overall posture

AFA CyberPatriot
Team Commander, Fullerton CA — January 2020 – January 2023

- Lead my team to secure intentionally flawed Windows and Linux virtual machines by resolving vulnerabilities in the system's security and user access policies, deciphering cryptographic codes, and ensuring critical services are enabled
- Developed a curriculum to address knowledge gaps, culminating in being California's top placed AJROTC team in 2021 and 2022

Projects

ThreeTrios | *Java, JUnit, Swing* — December 2024

- Programmed a strategic card game using object-oriented principles and JUnit testing to enhance code readability and reusability
- Designed a modular MVC architecture with encapsulation, guaranteeing scalability and simplifying feature integration

NUFS File System | *C, FUSE* — December 2024

- Engineered an in-memory filesystem with support for more than 20 file operations by utilizing the FUSE API
- Integrated modular components for bitmap, block, and storage handling to streamline file allocation and management

Storefront Website | GitHub | Website | *React.js, Tailwind, TypeScript* — November 2024

- Implemented a responsive website to effectively showcase baked goods, allowing accessibility across mobile and desktop devices
- Integrated a robust checkout system that interfaces with Venmo on desktop to autofill the price and items purchased

Mini-Shell | *C, Python, POSIX* — October 2024

- Built a custom shell in C with support for commands, piping, and tokenizing input, including quoted strings and special characters
- Integrated POSIX system calls (fork, exec, pipe) to execute user commands and enable inter-process communication

Homelab Infrastructure | *Proxmox, Docker, CasaOS, Caddy* — June 2022

- Utilized Proxmox Hypervisor with CasaOS and Docker to efficiently manage backups of personal records, photos, and videos
- Reverse proxied the dashboard with Caddy and Tailscale to enable secure remote access over TLS on my own domain
- Actively explore various platforms to improve system performance, scalability, and future-proof home infrastructure

Interests

Biking, Hiking, Photography, Backpacking, Swimming, Gaming, Singing, Piano, Romanian Culture