## Sean Finch

<u>finch.s@northeastern.edu</u> | (714) 930-5819 | <u>seanfinch.com</u> | <u>linkedin.com/in/sean-finch-g</u> | <u>github.com/seanfinchg</u> **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