

Kiernan Roche

Hacker, security consultant, motorcyclist, runner, hiker,
hobbyist accountant, finance and investing nerd

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EXPERIENCE

Kitsune Security, LLC

Co-Founder

January 2022 – June 2022

Boston, MA, US and remote

- Designed and implemented data collection (honeypot) systems and internal tooling using Rust
- Designed and implemented marketing strategy and web properties (full stack development)
- Owned darkweb research activities, gathering human intelligence (HUMINT) from cybercriminal groups to discover relevant information and assess business risk to our clients
- Gathered open-source intelligence (OSINT) for client engagements using Lampyre and Maltego

Amazon Inc. Physical Stores Offensive Security Team

Security Engineer (L4)

August 2021 – December 2021

Seattle, WA, US and remote

- Performed application and network penetration tests, red team assessments, and source code security audits of software and networks used in Amazon's physical retail stores
- Performed architecture review and threat modeling activities for software components handling privileged information
- Assessed business risk in collaboration with other security engineers and presented findings to stakeholders
- Advised and trained developers on best practices and guided them through Amazon's software security process, acting as a subject matter expert and security evangelist

Self-Employed

Independent Consultant

December 2020 – July 2021

Boston, MA, US and remote

- Performed and delivered penetration tests and provided expert advice
- Communicated with prospective clients and conducted business development activities

Synopsys Inc. Software Integrity Group

Associate Security Consultant

January – November 2020

Burlington, MA, US and remote

- Performed application and network security assessments for various Fortune 500 clients
- Sold \$10k+ of new work for Synopsys and delivered new client engagement personally
- Mentored two junior consultants in web application assessment methodology

Synopsys Inc. Software Integrity Group

Security Consultant Intern

May – August 2019

Burlington, MA, US

- Performed application security assessments for various Fortune 500 clients
- Contributed to internal Windows application analysis software
- Developed internal capture-the-flag software using Java

Virtual Security Research LLC (now NCC Group)

Security Consultant Co-Op

July – December 2018

Boston, MA, US

- Performed application, network, and physical security assessments as part of a professional team
- Designed and executed phishing and social engineering campaigns
- Presented engagement findings to clients and collaboratively developed remediation strategies

EDUCATION

B.S. Computer Science, Framingham State University

Framingham, MA, US

Sep 2016 – May 2020

- Computer science tutor 2017-2019, supplementing instruction to underclassmen
- President of the Computer Science Club 2017-2018
- Outstanding Service Award recipient for service to the computer science department and for peer mentorship

SKILLS

- Performing application, network, and physical penetration tests and source code security audits using industry-standard security tools (Burp Suite, Wireshark, Metasploit, Cobalt Strike, responder.py, nmap, netcat, etc.)
- Performing social engineering activities, including impersonation, RFID badge cloning, phishing, etc. as part of red team assessments
- Conducting threat modeling and design-stage security assessments
- Navigating cyber underground to monitor current trends and produce useful threat intelligence
- Software engineering, especially using Rust, Java, Python, C, web languages (HTML, JS, CSS) but capable of applying good design patterns in any language
- Linux system administration
- Communicating assessment findings and business risk to non-technical audiences

SPEAKING

- Cybersecurity Basics, *employee training for Synopsys client, October 2020*
- Overview of Open Financial Exchange and Implementation Weaknesses, *Boston Security Meetup, September 2020*
- Hacking Into Security Consulting, *Framingham State University, October 2019*

PROJECTS

mvpower_exec Metasploit module

Wrote a Metasploit module which exploits a vulnerability found in MvPower brand DVRs by Pentest Partners

hover-utils

Wrote a Bash script implementing dynamic DNS using Hover's undocumented API

COMMUNITY INVOLVEMENT

Open Web Application Security Project

Member – Boston chapter

Fidelity Merrimack Hackathon

Participant – July 2017

Boston Security Meetup CMD+CTRL CTF

Winner (1st place) – June 2019

OWASP Boston Application Security Conference CTF

Runner-up (2nd place) – October 2017