

Eric Rafaloff

Contact

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Certifications

Offensive Security Certified Professional (OSCP)

Skills

Secure code review, symbolic execution, fuzzing, web, network, mobile, threat modeling, applied cryptography, blockchain, smart contracts, software engineering (Java, Go, Python, Ruby, etc.)

CVEs

- [CVE-2018-4183](#) (MacOS)
- [CVE-2018-4181](#) (MacOS)
- [CVE-2017-9367](#) (BlackBerry Workspaces Server)
- [CVE-2017-9368](#) (BlackBerry Workspaces Server)

Publications Cited In

- Zabicki, Roman. "Practical Security: Simple Practices for Defending Your Systems". The Pragmatic Programmers (2019)
- Yaworski, Peter. "Real-World Bug Hunting". No Starch Press (2019)
- Indrani, Ray. "Security Vulnerabilities in Smart Contracts as Specifications in Linear Temporal Logic". UWSpace (2021)
- Everts, M. H., and Frank Muller. "Will that smart contract really do what you expect it to do?". Groningen: TNO (2018)

Experience

Aon (Formerly Gotham Digital Science) | New York, NY | Jan 2020 - Present

Director | Jan 2020

- Leader of Aon's secure code review practice, developing testing methodology and internal training, and performing security research and development (e.g., static analysis, symbolic execution).
- Managing multiple client relationships and the full lifecycle of consulting projects, from scoping to execution and delivery of work.
- Mentoring a tree of consultants to help them identify, manage, and achieve their professional development goals.

Trail of Bits | New York, NY | May 2019 - Nov 2019

Senior Security Engineer | May 2019

- Performed comprehensive security testing of custom blockchain software and smart contracts, leveraging static analysis, symbolic execution, fuzzing, and manual code review.
- Developed internal research projects related to blockchain and smart contract security (Python, Go).
- Contributed to the development of open source tools such as the static analyzer [Slither](#) (Python).

Gotham Digital Science | New York, NY | Jan 2016 - Apr 2019

Director | Jan 2019

- Started GDS' blockchain and smart contract security consulting practice.
- Managed multiple engineers and client relationships.
- Assisted other managers with scoping projects in areas of expertise.

Senior Security Engineer | Mar 2018

- Subject matter expert in secure code review, web application security testing, and network penetration testing.
- Published multiple blog posts detailing security research (e.g., [An Analysis of CVE-2017-5638](#)).
- Authored several internal tools that became integral to client assessments (Go, Ruby).
- Delivered security training sessions to clients, on a range of topics including secure coding practices and OWASP Top 10.

Security Engineer | Jan 2016

- Performed a variety of security testing services for clients, ranging from web application penetration testing and in-depth secure code review, to hardware testing and threat modeling.

Flatiron School | New York, NY | Apr 2015 - Jan 2016

DevOps Engineer

- Developed internal DevOps tools, such as backend microservices that helped run Learn.co, and a command line application that made it easier for employees to deploy static websites.
- Performed periodic secure code reviews and infrastructure security testing.

BitLove | Vancouver, BC (Remote) | Sep 2012 - Apr 2015

Full Stack Software Engineer

- Performed multiple technical roles for the high-traffic (Alexa top 3,000) website FetLife.com (NSFW), from web application development to DevOps engineering.