

Jared Stemper

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EXPERIENCE

Offensive Security Engineer

TikTok USDS

September 2024 – Present

New York, NY

- Architected & deployed a distributed, event-driven microservices platform using Golang, Kafka, & Redis, achieving a **98% reduction in runtime** for telemetry collection across millions of nodes.
- Engineered an extensible, decoupled analysis layer with Open Policy Agent (OPA) identifying **2,000+ control gaps** in MVP that provided continuous validation & automated regression testing against vulnerabilities.
- Orchestrated CI/CD pipelines for complex, multi-system deployments & developed custom automation tooling, such as an API-to-Go code generator that accelerated offensive testing workflows.
- Led systemic vulnerability research across production networks and bespoke applications, uncovering critical flaws in complex authentication flows and custom business logic.

Offensive Cybersecurity Consultant

RSM US LLP

July 2021 – July 2024

Chicago, IL

- Performed red team, physical penetration, & network penetration testing as a technical lead of the close access and network exploitation teams.
- Mentored and led testing across web application, LLM/AI models, wireless network, social-engineering, cloud penetration testing, & configuration review assessments (AWS).
- Developed Python and Tmux automation framework to streamline network penetration testing organization & automating attacks; reducing start-up time by 85% for testers.
- Built modular scanner and reporting utility with Python and Docker to asynchronously run security tooling, including AWS configuration and code review, before consolidating output into standardized findings for reporting.
- Created a long-range RFID badge cloner using microcontroller devices with live credential reading through a Raspberry Pi wireless AP.
- Provided actionable remediation recommendations to client executives by delivering breach vector reports, enabling risk reduction & minimizing liability exposure for Fortune 10 technology companies, Fortune 500 financial institutions, & private clients.

Security Software Engineering Intern

Synopsys

May 2020 – Dec 2020

Bloomington, IN

- Automated AB-testing analysis through Python scripting report comparison, resulting in a 40% reduction in manager analysis time.
- Aggregated assessment data across Netsparker, AppScan, & BurpSuite through Jira & PostgreSQL, facilitating tracking of vulnerability trends.
- Designed & implemented an automated Tableau storyboard for senior managers & C-level to track trends across assessments.

Penetration Security Consulting Intern

RSM US LLP

Jun 2019 – Aug 2019

Chicago, IL

- Supported security engagements in network/web pentesting, developing automation scripts, & assisting NIST CSF compliance assessments.

Undergraduate Instructor: Intro. to Python Programming

Indiana University

Sep 2018 – Jun 2020

Bloomington, IN

- Developed & maintained Python autograding tools while supporting instruction of 200+ students through extensive Python exercises & labs.

EDUCATION

B.S. in Computer Science

Indiana University

Aug 2017 – May 2021

Bloomington, IN

Relevant Courses: Data Structures, Machine Learning, Relational Databases, Networking, C and Unix, Discrete Mathematics, Linear Algebra

TECHNICAL SKILLS

Languages: Golang/Go, Python, C/C++, SQL, JavaScript, HTML/CSS, Unix Bash

Systems/Frameworks: OPA, RDS, Kafka, Redis, Hertz, FaaS, HIVE

Certifications: PNPT, SANS GPCS, CompTIA CySA+, AWS Certified Cloud Practitioner

Security: Red Team, Internal/External Network, Web Application, Physical, & Social Engineering Penetration Testing

Miscellaneous: AWS, Docker, Containerization, Linux, Tenable Nessus, Forklift-certified, Cobalt Strike

PROJECTS

Scylla

2023 – Present

- Orchestration and automation tool developed using Bash and Python to support efficient and consistent internal network penetration testing.

NixOS Hardened Router

2025

- Infrastructure-as-code router implementation featuring default-deny nftables rulesets, stateful packet inspection, IPv6 blocking, & network isolation to support safe adversary simulation and exploit development environments.

PassMasker

2024

- Analyze a list of passwords using novel bucket-sort implementation to improve computation by 40% and provide an analysis of the the passwords into a mask ingestible to hashcat.

Tor Browser Fingerprinting Research

2019

- Measured comparative data sets to determine Tor browser's anti-fingerprinting capabilities and develop an algorithm to bypass controls.

VOLUNTEERING

#HashtagLunchbag Volunteer

2022 – 2024

- Packed lunches to help prepare meals for Pacific Garden Mission homeless shelter.