Nathaniel Singer, CISSP

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Check out my security blog, posting weekly: https://singer.cloud

PROFESSIONAL PROFILE

An ambitious and interest-driven Cyber Security Analyst with 5.5 years' experience including 4 years providing cyber analytics of operations and projects in military environments. Experience includes network and systems administration, intelligence production, and radio networks/maintenance/security. Active TOP SECRET, Sensitive Compartmentalized Information (TS//SCI) U.S. Security Clearance as of September 2019. Single scope background investigation closed June 2018, providing clearance through 2024. Active member of (ISC)², currently ranked 762 (USA) on HacktheBox.eu, and placed within the top 1% of 13.3k competitors in the undergraduate SANS capture the flag event: CyberFastTrack.

CORE COMPETENCIES

Network Security (5/5)	(4/5) Speaking & Presentation
Vulnerability research (4/5)	(4/5) Cyber Risk Assessment
Bash Scripting/Security Automation (5/5)	(4/5) Mentoring & Teaching
Radio Frequency Security (5/5)	(3/5) Penetration Testing
Team Management/Leadership (4/5)	(3/5) Network & System Admin

CAREER SUMMARY

UNITED STATES AIR FORCE – [SAN ANGELO, TX] [EASTERN AFGHANISTAN]   **Aug 2016 - Present**
Cyber Security Analyst, Supervisor (NCOIC[1])

***(E5) Staff Sergeant** 2020 – Present* || Goodfellow AFB
- Developed and maintained 32 Red Hat Enterprise Linux (RHEL) systems in support of Elastic ELK-based IDS (CVAH[2])
- Produced actionable cyber threat modeling through public and classified intelligence, developed real mitigation strategy
- Performed network traffic analysis through a custom IDS[3] based on Snort, Suricata, Docker and hypervised with ESXi[4]
- Constantly developed Bash, Python and PowerShell code to handle a variety of scanning, auditing, maintenance tasks

***(E4) Senior Airman** 2018 – 2020* || Goodfellow AFB || Bagram AB, Afghanistan
- Led a team of cybersecurity analysts, operated a $1.7M weapon system, ensured CIA for classified/unclassified domains
- Established then directed tracking program for $12.5M of critical assets, identified $260k worth of absent/damaged gear
- Provided Radio-Over-IP (ROIP) core administration, tower maintenance, crypto delivery to sites in Eastern Afghanistan
- Directed and guided a team of four security engineers to stand-up a custom Elastic ElkStack IDS pipeline called CVA-H.

***(E3) Airman First Class** Aug 2016 – Jun 2018* || Keesler AFB || Goodfellow AFB, Texas
- Identified as the sole select of 63 candidates, for early promotion, centered primarily on proven and potential leadership
- Performed scheduled audits of radio frequency (RF) around secure buildings (SCIFs), to ensure emissions security req
- Founded youth cyber ed. program, won Texas 1st year (1st of 82), 12th of 1.1k teams USA, grew program x5, +4 mentors
- During off-duty time, focused on continuing education with discipline, accruing two industry certifications, 82 credit hours

AXCELIS TECHNOLOGIES INC. – [BEVERLY, MA]   **Jan 2015 - Jul 2016**

***IT Support Specialist** Jan 2015 – Jul 2016* || Beverly, Massachusetts
- Worked full-time during high-school providing imaging, deployment, and helpdesk services to 800 clients, 1k+ endpoints
- Efficiently processed both change and repair requests for diverse divisions, including physics, engineering, and support
- Directly assisted network engineers with three major projects: SolarWinds install, patching of an IDF, and AD-X rollover
- Precisely led effort; coordinated with users over the course of two months, manually rolled MSOffice2016 to 1150 clients

EDUCATION

NORWICH UNIVERSITY, NORTHFIELD, VT
Double Major, GPA 3.96 (projected 26 June 2020)
- Bachelor of Science in Cyber Security
  - *National Security Agency Center of Academic Excellence in Cyber Defense Education*
- Bachelor of Science in Management Studies
  - Concentration in Cyber Security Management

SALUTE Veterans National Honor Society - Alpha Tier

PROFESSIONAL CERTIFICATION

(ISC)² CISSP || Certified Feb 2020 ~ Expires 2023
  ID: 709786

CompTIA Security+ || Certified Sep 2018 ~ Expires 2021
  ID: DFHDGMLNHPRQ16C7

Cisco CCENT || Certified Jan 2019 ~ Expires Jan 2022
  Verification: 1581447589, REG: 345973549

Pursuing: OffSec OSCP (4 April), OffSec OSCE (July)

VOLUNTEER EXPERIENCE

AFA CYBERPATRIOT – TEXAS LEADERSHIP CHARTER ACADEMY   Apr 2017 - Present

Program Founder/Director and Lead Technical Mentor
- 8 years of connection with CyberPatriot; four in competition, then after starting TLCA in 2017, four as a program director
- In year 1 with TLCA, we dominated the state of Texas, placing 1st of 82 teams, and 12th overall nationally of 1.1k teams
- In year 4 with TLCA, we have grown to five teams, now including the high-school, also adding four supporting mentors
- Developed advanced course material for veteran students who want to be challenged with reverse engineering CTFs
- My mentorship team goes from the basics of what makes a computer turn bits into actions, all the way to basic exploits

Program Overview (directly from: https://www.uscyberpatriot.org/Pages/About/What-is-CyberPatriot.aspx)
- The focal point of CyberPatriot is the National Youth Cyber Defense Competition, which places teams of high school and middle school students in the position of newly hired IT professionals managing the network of a small business.
- The teams are provided with a set of virtual machines representing operating systems and are tasked with identifying cyber security vulnerabilities within the images, ultimately hardening the system while maintaining critical services.
- Teams compete for the top placement within their state and region and the top teams earn an all-expenses paid trip to Baltimore, MD for a National Finals Competition, with the opportunity for national recognition and scholarships.

ADDITIONAL TRAINING

High-Level Programming (C, C++, PHP, Java[not incredibly strong])
Low-Level Programming (x86 Assembly)
Scripting (Bash, PowerShell)
Malware Forensics (Reverse Engineering, Analysis, Signature Design)
Relational Database Design w/ SQL

TECHNICAL PROFICIENCY

Operating Systems: Windows, Linux (Fedora [RHEL] and Debian [Kali, Ubuntu] based), MacOS, Android/IOS
Networking: LAN/WAN, TCP/IP (DNS and DHCP), Cisco Technologies
Programming: Python, BASH, PS, ASM, C, C++, HTML5, MySQL, PHP
Microsoft: SharePoint, Access, Office Suite

ACRONYMS

1. NCOIC // Non-Commissioned Officer in Charge
2. CVAH // Cyber Vulnerability Assess Hunt (Air Force Weapon System Platform)
3. IDS // Intrusion Detection System
4. ESXi // VMWare Designed hypervisor, common in the industry