

Stefan Achleitner

Director & Lead Researcher for Cloud Native Security
Dynatrace

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Experience

Director/Principal & Lead Researcher - Cloud Native Security

Dynatrace, Vienna, Austria / March 2022 - present

- Leading the research team for Cloud Native Security
- Developing new leading-edge security technologies
- Defining the strategic research road map focused on cyber security topics

Principal Security Researcher - Threat Prevention

Palo Alto Networks, Santa Clara, CA/Reston, VA, USA / January 2018 - February 2022

- Tech-lead for network threat detection with machine learning
 - Leading multiple researchers and engineers
 - Project management and resource planning
 - Communication about project milestones with higher management
- Performing security research to detect and prevent threats in the following areas
 - Malware command and control traffic
 - Command injection attacks to exploit vulnerabilities
 - Analysis of post-exploitation tools and collection of IOCs
 - Application behavior analytics on the network
 - Research featured in *Forbes*, *ZDNet*, *DarkReading*, *Security Boulevard*, etc.
- Presenting at conferences and contributing blog posts (e.g. Palo Alto Networks Unit42)
- 6 US patents pending in the area of ML based network analytics (3 as lead inventor)

Research Assistant – Institute for Networking and Security Research

Pennsylvania State University, University Park, PA, USA / 2013 - 2017

- Analyzing and researching novel attack strategies on Software Defined Networks
- Developed a system to deceive insider attackers in computer networks
- Analyzing security issues of virtual machine migration on the network

Founder

Actynos, Vienna, Austria / 2003 - 2011

- Web and software development projects for various companies in Austria and Germany

Internships in cybersecurity, software- and systems-engineering at the following companies:

Ericsson, Accenture, Siemens, Sony Pictures, Peraton Labs

Education

Ph.D. in Computer Science and Engineering

Pennsylvania State University, University Park, PA, USA / 2013 - 2018

Institute for Networking and Security Research

Publications in international conferences and journals such as INFOCOM, CCS, ACM SOSR, etc.

Thesis: Security in Software Defined Networking: An Analysis of new Attack and Defense Vectors

Dual M.S. in Computer Science and Business Engineering

Vienna University of Technology, Vienna, Austria / 2008 - 2010

Stanford University, Stanford, CA, USA (visiting student during masters program)

B.S. in Computer Science

Vienna University of Technology, Vienna, Austria / 2005 - 2008

Awards (selected)

Palo Alto Networks Innovation Award – For machine learning based exploit detection / 2021

Graduate Scholarship for Excellence in Engineering – Penn State University / 2018

Best Student Paper Award – ACM Symposium on SDN Research (SOSR) / 2017

Skills

Computer and Network Security

Malware and threat research

Intrusion prevention systems

Network protocol analysis (TCP/UDP, DNS, HTTP, TLS/SSL, FTP, ARP)

Reconnaissance and exploits

Post-exploitation tools

Cloud-security

Machine Learning and Data Science

Supervised learning (Neural Networks, GXBoost, SVM, Random Forests)

Unsupervised learning (KMeans, DBScan)

Anomaly detection (Autoencoders, OneClass SVM, Isolation Forests)

Cloud Computing

GCP, AWS

Kubernetes Clusters

Docker Containers

Software Engineering

Python, Java, C/C++, SQL, HTML, JavaScript, PHP, C#

Management

Team leading and development

Project management and resource planning