Billy Tsouvalas
Research Assistant & PhD Student at SUNY Stony Brook
Electrical & Computer Engineer BSc, MSc
IBM Certified Cybersecurity Analyst
Website, LinkedIn, Google Scholar

Stony Brook, NY
+1 (804)-980-1233
vtsouvalas@cs.stonybrook.edu

Education

Stony Brook University (SBU)	2022-Present
Computer Science PhD	
Virginia Commonwealth University (VCU)	2021-2022
Computer Science Graduate Studies	
University of Patras	2014-2020
BSc, MSc from Electrical and Computer Engineering Department	
Master's Thesis: Malware Classification Methodologies	

Work Experience

SBU Research Assistant	2023-Present
Web Security Research	
SBU PragSec Lab System Administrator	2023-Present
Network & Server Administrator	
SBU Teaching Assistant	2022-2023
Web Security Research	
TA for Computer Networks course	
VCU Research Assistant	2021-2022
Network Intrusion Detection and Prevention Systems	
Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind)	
VCU Cybersecurity Center Social Media Administrator	2021-2022
Social Media Marketing and Digital Presence	
University of Patras Research Intern	2019-2020
Static and Dynamic Malware Analysis and Detection	
Online Misinformation Propagation	
Website Development and Maintenance	2018-2020
Web Design/Development	
Web Applications	
Social Media and Digital Marketing	

Research

SBU PragSec Lab	2022-Present
Web Security	
Honeypots, Bot Behavior, Deception-based Defenses	
VCU Modern Heuristics Research Group	2021-2022
Network Security and Cyber Threat Analysis and Characterization	
Critical Infrastructure Cybersecurity	
University of Patras Malware Analysis Team	2019-2020
Development of Static and Dynamic Malware Detection Tool	

Publications

	2023

Surgical teaching of the retropubic midurethral sling: a virtual reality training system
Lauren Siff, **Vasileios Tsouvalas**, *Lewis F Bost, Milos Manic*
International Urogynecology Journal

Location and Language Independent Fake Rumor Detection through Epidemiological and Structural
Graph Analysis of Social Connections
Dimitrios Serpanos, Georgios Xenos, **Billy Tsouvalas**
Frontiers in Artificial Intelligence

Data-driven correlation of cyber and physical anomalies for holistic system health monitoring
Daniel L Marino, Chathurika S Wickramasinghe, **Billy Tsouvalas***, Craig Rieger, Milos Manic*
IEEE Access

Malware classification methodologies.(link)
B. Tsouvalas
University of Patras, Greece MSc Thesis

Academic Service

Publicity Chair   2022, 2023
Active Defense & Deception Workshop under IEEE Euro Security and Privacy
Conference
Reviewer for IEEE Transactions on Industrial Informatics   2022

Certifications & Courses

Google Cybersecurity Professional Certificate   Obtained: Aug. 2023
Course duration: 6 months
Palo Alto Networks Cybersecurity Prof. Cert.   Obtained: June 2023
Course duration: 1 month
CISCO Network Automation Engineering Fundamentals   Obtained: June 2023
Specialization
Course duration: 3 months
(ISC)^2 Certified in Cybersecurity Specialization (CC)   Obtained: June 2023
Course duration: 1 month
INFOSEC JavaScript Security Specialization   Obtained: June 2023
Course duration: 1 month
EC-Council Cybersecurity Attack and Defense Fundamentals   Obtained: June 2023
Course duration: 5 months
Google IT Automation w/ Python Prof. Cert.   Obtained: Oct. 2021
Course duration: 8 months
INFOSEC Cyber Incident Response Specialization   Obtained: Aug. 2021
Course duration: 4 months
IBM Cybersecurity Analyst Prof. Cert   Obtained: Dec. 2020
Course duration: 8 months
Homeland Security and Cybersecurity Specialization   Obtained: Dec. 2020
University of Colorado, Colorado Springs
Course duration: 4 months
Usable Security   Obtained: Nov. 2020
University of Maryland, College Park

Generative Adversarial Networks (GANs)   Obtained: Nov. 2020
DeepLearning.AI

Professional Skills

Network & Systems

Nginx, Apache, Mitmproxy, Docker, Hydra, Wpscan, Honeypot Deployment, Bot Behavior Analysis

Network Security

IDS/IPS, Wireshark, Zeek, Suricata, Snort, Stratosphere IPS, Anomaly Detection, Intrusion Detection Datasets

Penetration Testing and Forensics

OWASP, Burp Suite, Metasploit, NMAP, Hashcat, Aircrack-ng, Volatility

Malware Analysis

NSA Ghidra, Hex Rays IDA Pro, Radare, gdb, Malware Reverse Engineering, Control Flow & API Call Graphs

Machine Learning and Data Mining

Binary Decision Trees, Random Forest, SVM, Neural Networks, Markov Chains, BERT

Programming and Scripting

Python, C, C++, DSP Assembly, Java, Javascript, Git, Matlab

Languages

English[a] ●●●●●

French[b] ●●●●●

Greek (Native) ●●●●●

German ●●○○○

ETS TOEFL Nov. 2020, Score: 115/120
DALF C1 CERF

Soft Skills

Fast Learner   Responsible   Performance Under Pressure   Team Work

Multitasking   Stamina   Verbal Communication   Public Speaking

Misc

Military Service Obligations Fulfilled   2018-2019
Hellenic Navy