

Billy Tsouvalas

Research Assistant & PhD Student at SBU
Electrical Engineer BSc, MSc
IBM Certified Cybersecurity Analyst
ORC ID: 0000-0002-8441-6489

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	

Research

SBU PragSec Lab	2022-Present
Web Security	
Moving Target Defense	
Honeypots Deception-based Defenses	
VCU Modern Heuristics Research Group	2021-2022
Network Security and Cyber Threat Analysis and Characterization	
Critical Infrastructure Cybersecurity	
AI-Deep Learning Adversarial Examples Attacks	
University of Patras Malware Analysis Team	2019-2020
Development of Static and Dynamic Malware Detection Tool	
Participation in Cybersecurity Exercise Panoptes 2020	
(Hellenic National Defence General Staff)	
Participation in HackTheBox CTFs	

Publications

	2023
Surgical teaching of the retropubic midurethral sling: a virtual reality training system <i>Lauren Siff, Vasileios Tsouvalas, Lewis F Bost, Milos Manic</i> International Urogynecology Journal	
	2022
Location and Language Independent Fake Rumor Detection through Epidemiological and Structural Graph Analysis of Social Connections <i>Dimitrios Serpanos, Georgios Xenos, Billy Tsouvalas</i> Frontiers in Artificial Intelligence	
	2021
Data-driven correlation of cyber and physical anomalies for holistic system health monitoring <i>Daniel L Marino, Chathurika S Wickramasinghe, Billy Tsouvalas, Craig Rieger, Milos Manic</i> IEEE Access	
	2020
Malware classification methodologies. (link) <i>B. Tsouvalas</i> University of Patras, Greece MSc Thesis	

Work Experience

SBU Research Assistant	2023-Present
Web Security Research PragSec Lab Network Administrator	
SBU Teaching Assistant	2022-2023
TA for Computer Networks course Web Security Research	
VCU Cybersecurity Research	2021-2022
Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind)	

VCU Cybersecurity Center Social Media Administrator	2021-2022
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Social Media Marketing and Digital Presence

University of Patras Research Intern	2019-2020
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Static and Dynamic Malware Analysis and Detection

Online Misinformation Propagation

Website Development and Maintenance	2018-2020
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Web Design/Development

Web Applications

Social Media and Digital Marketing

Academic Service

Publicity Chair	2022, 2023
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Active Defense & Deception Workshop under IEEE Euro Security and

Privacy Conference

Reviewer for IEEE Transactions on Industrial Informatics	2022
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Certifications & Courses

Google IT Automation w/ Python Prof. Cert.	Obtained: Oct. 2021
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Course duration: 8 months

Cyber Incident Response Specialization	Obtained: Aug. 2021
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INFOSEC

Course duration: 4 months

IBM Cybersecurity Analyst Prof. Cert	Obtained: Dec. 2020
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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

Palo Alto Networks Academy Cybersecurity Foundation

Obtained: Nov. 2020

Palo Alto Networks

Generative Adversarial Networks (GANs)

Obtained: Nov. 2020

DeepLearning.AI

Professional Skills

Malware Analysis

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

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

Programming and Scripting

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

Languages

English^a ●●●●●

French^b ●●●●●

Greek (Native) ●●●●●

German ●●●●●

^aETS TOEFL Nov. 2020, Score: 115/120

^bDALF 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

Updated: 02/03/2023