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

2023

Computer Science PhD Airginia Commonwealth University (VCU) Computer Science Graduate Studies Jiniversity of Patras SSc, MSc from Electrical and Computer Engineering Department Master's Thesis: Malware Classification Methodologies Work Experience SBU Research Assistant Web Security Research SBU PragSec Lab System Administrator Network & Server Administrator Net Security Research A for Computer Networks course // CU Research Assistant Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) // CU Cybersecurity Center Social Media Administrator Static and Dynamic Malware Analysis and Detection Online Misinformation Propagation Nebsite Development and Maintenance Neb Design/Development Neb Applications Social Media and Digital Marketing Research SBU PragSec Lab Neb Security Honeypots, Bot Behavior, Deception-based Defenses // CU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity Level Security	Stony Brook University (SBU)	
Computer Science Graduate Studies Jniversity of Patras Sec, MSc from Electrical and Computer Engineering Department Master's Thesis: Malware Classification Methodologies Work Experience SBU Research Assistant Web Security Research SBU PragSec Lab System Administrator Network & Server Administrator SBU Teaching Assistant Web Security Research Af for Computer Networks course VCU Research Assistant Network Intrusion Detection and Prevention Systems Scritical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) VCU Cybersecurity Center Social Media Administrator Social Media Marketing and Digital Presence University of Patras Research Intern Static and Dynamic Malware Analysis and Detection Online Misinformation Propagation Website Development and Maintenance Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab Secarch SBU PragSec Lab Web Security Honeypots, Bot Behavior, Deception-based Defenses VCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Criticial Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202 Static Analysis Team 2019-202 Static Analysis Team 2022-Preserver Security Security Security Security Security Analysis Team 2019-202	Computer Science PhD	2022-Present
Asc, MSc from Electrical and Computer Engineering Department Master's Thesis: Malware Classification Methodologies Work Experience BBU Research Assistant Web Security Research BBU PragSec Lab System Administrator Network & Server Administrator Neb Security Research BBU Reaching Assistant Web Security Research Ta for Computer Networks course WCU Research Assistant Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) WCU Cybersecurity Center Social Media Administrator Nocial Media Marketing and Digital Presence Driversity of Patras Research Intern Static and Dynamic Malware Analysis and Detection Duline Misinformation Propagation Website Development and Maintenance Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab Web Security Honeypots, Bot Behavior, Deception-based Defenses WCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202 2021-203 2021-	Virginia Commonwealth University (VCU) Computer Science Graduate Studies	2021-2022
SBU Research Assistant Web Security Research SBU PragSec Lab System Administrator Network & Server Administrator SBU Teaching Assistant Web Security Research FA for Computer Networks course VCU Research Assistant Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) VCU Cybersecurity Center Social Media Administrator Social Media Marketing and Digital Presence University of Patras Research Intern Static and Dynamic Malware Analysis and Detection Online Misinformation Propagation Nebsite Development and Maintenance Web Design/Development Neb Applications Social Media and Digital Marketing Research SBU PragSec Lab SBU PragSec Lab Web Security Honeypots, Bot Behavior, Deception-based Defenses VCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202 2019-202 2019-202 2019-202 2019-202 2019-202 2019-202 2019-202 2019-202 2019-202 2019-202 2019-202	BSc, MSc from Electrical and Computer Engineering Department Master's Thesis: Malware Classification Methodologies	2014-2020
Web Security Research SBU PragSec Lab System Administrator Network & Server Administrator Network & Server Administrator Network & Server Administrator Network & Server Administrator Network Security Research Network Information Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) Network of Patras Research Intern Static and Dynamic Malware Analysis and Detection Online Misinformation Propagation Nebsite Development and Maintenance Neb Design/Development Neb Applications Social Media and Digital Marketing Research SBU PragSec Lab Neb Security Honeypots, Bot Behavior, Deception-based Defenses NCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202	Work Experience	
Network & Server Administrator SBU Teaching Assistant Web Security Research Af for Computer Networks course VCU Research Assistant Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) VCU Cybersecurity Center Social Media Administrator Social Media Marketing and Digital Presence University of Patras Research Intern Static and Dynamic Malware Analysis and Detection Unline Misinformation Propagation Website Development and Maintenance Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab Web Security Honeypots, Bot Behavior, Deception-based Defenses VCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2022-202	SBU Research Assistant Web Security Research	2023-Present
Web Security Research PA for Computer Networks course WCU Research Assistant WCU Research Assistant Setwork Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) WCU Cybersecurity Center Social Media Administrator Social Media Marketing and Digital Presence University of Patras Research Intern Static and Dynamic Malware Analysis and Detection Conline Misinformation Propagation Website Development and Maintenance Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab Security Honeypots, Bot Behavior, Deception-based Defenses WCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2021-202	SBU PragSec Lab System Administrator Network & Server Administrator	2023-Present
Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind) VCU Cybersecurity Center Social Media Administrator Social Media Marketing and Digital Presence University of Patras Research Intern Static and Dynamic Malware Analysis and Detection Conline Misinformation Propagation Website Development and Maintenance Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab SBU PragSec Lab Security Honeypots, Bot Behavior, Deception-based Defenses VCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2021-202	SBU Teaching Assistant Web Security Research TA for Computer Networks course	2022-2023
Social Media Marketing and Digital Presence University of Patras Research Intern Static and Dynamic Malware Analysis and Detection Unline Misinformation Propagation Website Development and Maintenance Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab Security Honeypots, Bot Behavior, Deception-based Defenses WCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202	VCU Research Assistant Network Intrusion Detection and Prevention Systems Critical Infrastructure Cybersecurity: Energy Sector (Solar, Wind)	2021-2022
University of Patras Research Intern Static and Dynamic Malware Analysis and Detection Unline Misinformation Propagation Website Development and Maintenance Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab Web Security Honeypots, Bot Behavior, Deception-based Defenses WCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202	VCU Cybersecurity Center Social Media Administrator Social Media Marketing and Digital Presence	2021-2022
Online Misinformation Propagation Website Development and Maintenance Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab Web Security Honeypots, Bot Behavior, Deception-based Defenses WCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2018-202 2018-202 2018-202 2018-202 2019-202	University of Patras Research Intern	2019-2020
Web Design/Development Web Applications Social Media and Digital Marketing Research SBU PragSec Lab Web Security Honeypots, Bot Behavior, Deception-based Defenses VCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2022-Preserved 2021-202 2021-202 2021-202	Static and Dynamic Malware Analysis and Detection Online Misinformation Propagation	
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Web Security Honeypots, Bot Behavior, Deception-based Defenses WCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202	Research	
Honeypots, Bot Behavior, Deception-based Defenses VCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity Jniversity of Patras Malware Analysis Team 2019-202	SBU PragSec Lab	2022-Present
Network Security and Cyber Threat Analysis and Characterization Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202	Web Security Honeypots, Bot Behavior, Deception-based Defenses	
Critical Infrastructure Cybersecurity University of Patras Malware Analysis Team 2019-202	VCU Modern Heuristics Research Group Network Security and Cyber Threat Analysis and Characterization	2021-2022
•	Critical Infrastructure Cybersecurity	
Development of Static and Dynamic Malware Detection Tool	University of Patras Malware Analysis Team	2019-2020
	Development of Static and Dynamic Malware Detection Tool	

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

2021

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**

2020

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 Specialization	Obtained: June 2023
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	OL4 : 1 N 2020
Usable Security	Obtained: Nov. 2020
University of Maryland, College Park	
Generative Adversarial Networks (GANs) DeepLearning.AI	Obtained: Nov. 2020

Professional Skills

Network & Systems

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

Penetration Testing and Forensics

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

Machine Learning and Data Mining

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

Network Security

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

Malware Analysis

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

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 Hellenic Navy 2018-2019