Vasilis Ieropoulos

CV

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Slayingripper

Personal Profile

A dedicated cybersecurity researcher with a strong background in machine learning and threat detection. Proven experience in identifying vulnerabilities and developing mitigation strategies for IoT devices and machine learning models.

Education

2021–Present **Ph.D. in Cybersecurity Analytics**, *Cardiff University*, UK, **Thesis Title:** Machine Learning Threat Detection for Low Complexity Edge Deployment: Threats, Risks, and Mitigations (with Toshiba)

2020–2021 **M.Sc. in Cybersecurity (Distinction)**, *Cardiff University*, UK, **Dissertation Title:** Investigating Radio Frequency Vulnerabilities in the Internet of Things

2017–2020 **B.Sc. (Hons) in Computer Science (2:1)**, *University of Nottingham*, UK, **Dissertation Title:** Detecting Spoof Emails with Information Fusion

2015–2017 **HND in Computing and Systems Development**, *Computrain LTD*, Cyprus

2011–2015 **High School Diploma (85%)**, *The Grammar School Nicosia*, Cyprus

Professional Experience

Jan 2024–Present **Researcher**, *TrustworthyAI*, Working on various cybersecurity research projects with major industrial partners, focusing on trustworthy artificial intelligence and machine learning security.

Sept 2024–Nov 2024 **Research Intern**, *Toshiba Europe Bristol*, UK, Worked on identifying machine learning model attacks using distributed and decentralized methods and partial inferencing.

- Researched and analyzed potential vulnerabilities in machine learning models.
- Developed methods for detecting and mitigating distributed attacks.
- Collaborated with cross-functional teams to implement partial inferencing techniques.

May 2024–Oct 2024 **Instructor for Python Essentials Levels 1 & 2**, *SCP*, Taught Python programming courses covering essentials from beginner to intermediate levels.

- Developed and delivered curriculum for Python Essentials Levels 1 and 2.
- Guided students through hands-on coding exercises and projects.
- Assessed student performance and provided constructive feedback.

June 2020–Aug 2020 **Programmer Analyst**, *GnosisNet*, Cyprus, Solo project for the Municipality of Larnaca to create a waste management system.

- Developed a desktop server application in C# for data management.
- Created an Android application for scanning unique barcodes on bin bags.
- Enabled analysis of waste generation per household for billing purposes.

2018–Present **Station Manager**, *Cyprus Amateur Radio Society*, Cyprus
- Established and managed Cyprus's satellite image receiving station for weather monitoring and propagation prediction.
- Created the first radiosonde tracking station in the Middle East for tracking and retrieving weather balloons.
- Managed an ADS-B plane tracking station using a Raspberry Pi 3 with remote VPN setup.

2017–Present **Freelance Web Developer and Technical Support**, Cyprus
- Developed multiple websites for various clients.
- Built custom desktop computers tailored to individual needs.

2015–2017 **Sergeant**, *Cyprus National Guard*, Cyprus
- Led and organized fellow soldiers as a ranked sergeant.
- Specialized in Anti-Aircraft Artillery using the Mistral Missile System.

Technical Skills

Programming Languages

C, C++, C#, Java, Python, Haskell, ARM Assembly

Frameworks and Libraries

Scikit-learn, Keras, NLTK, ASP.NET, DevExpress, Android Studio, JavaFX, Kubernetes, Docker

Operating Systems

Windows, Linux, Android, Arduino

Awards and Achievements

2023 **MVP**, Easter CTF, Cardiff University

2019 Placed **10th** out of 50, BCS Cyber-Security Challenge, British Computer Society

2016 Placed **16th** out of 40, Pentest Cyprus, Cyprus Computer Society

2013 **Scout of Democracy** Award, Presented by the President of Cyprus

2012 Bronze Award, Duke of Edinburgh

Conference Presentations

2024 **Presentation**, *Bsides Cymru*, Cardiff, Wales, **Title:** Pocket-Sized Powerhouses: Exploring IDSs on Microcontrollers

Explored the implementation of Intrusion Detection Systems (IDS) on microcontroller platforms, highlighting the potential for low-cost security solutions in IoT devices.

2024 **Presentation**, *IEEE-CSR Conference*, London, England, **Title:** The Impact of GPS Interference in the Middle East

Presented research on the effects of GPS interference in the Middle East region, discussing the implications for navigation, security, and measures to mitigate such interference.

2022 **Presentation**, *THCon*, Toulouse,France, **Title:** Using Harmonics for Low-Cost Jamming

Demonstrated techniques for low-cost jamming using harmonic frequencies, analyzing vulnerabilities of communication systems to such attacks and proposing countermeasures.