Athanasios Petsas

Curriculum Vitae

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Personal Details

Name	Athanasios Petsas
Date of birth	November 15, 1986
Nationality	Greek
Languages	English, Greek, Spanish (basic)

Work Experience

Oct. 2018 – present — **R&D Engineer** at Symantec, San Francisco, CA, USA
- Modern OS Security. Dynamic analysis of Android applications.

Jan. 2016 – Sept. 2018 — **R&D Engineer** at Appthority, San Francisco, CA, USA (1/1/2016 – 12/31/2017: Worked remotely from Greece)
- Design and implementation of dynamic analysis features for detecting/extracing specific behaviors from Android applications.
- Assisted in developement and integration of Android apps scraping from Google Play.

Oct. 2015 – Dec. 2015 — **Intern** at Appthority, San Francisco, CA, USA
- Design and develop smart techniques for exercising many execution paths during dynamic analysis of Android mobile apps.

Nov. 2012 – Sept. 2015 — **R&D Engineer** at Distributed Computing Systems Lab of FORTH-ICS, Heraklion, Crete, Greece (with a Training Fellowship)
- Participation in the EU-funded projects: SysSec (A European Network of Excellence in Managing Threats and Vulnerabilities in the Future Internet), NECOMA (Nippon-European Cyberdefense-Oriented Multilayer threat Analysis).
- Study and modeling of app popularity in Android application marketplaces.
- Implementation of emulation evasion techniques in Android.
- Analysis of energy consumption of Anti-virus software for Android.
- Measurements for the quantification of two-factor authentication's adoption.
- Implementation of an anti-tracking mechanism for Android that preserves users privacy during browsing.

Jul. 2009 – Oct. 2012 — **Research Assistant** at Distributed Computing Systems Lab of FORTH-ICS, Heraklion, Crete, Greece (7/1/2009 – 9/30/2009 with undergraduate scholarship, 12/1/2009 – 10/31/2012 with postgraduate scholarship)
- Participation in EU-funded projects: NoAH (network of affined honeypots), WOMBAT (worldwide observatory of malicious behaviors and attack threats).
- Research on IM threats and implementation of a IM honeypot prototype.
- Research on how phishing campaigns may abuse social networks.

Education

Oct. 2009 – Nov. 2012	**M.Sc. in Computer Science**, *Computer Science Department*, University of Crete, Greece. GPA: 9.0 out of 10.0

MASTER THESIS

title	*Rise of the Planet of the Apps: A Systematic Study of the Mobile App Ecosystem.*
supervisors	Professor Evangelos Markatos
description	A Measurement and modeling study of the mobile applications ecosystem focusing on Android appstores.

Sept. 2004 – Jul. 2009	**B.Sc. in Computer Science**, *Computer Science Department*, University of Crete, Greece. GPA: 7.56 out of 10.0

UNDERGRADUATE THESIS

title	*HoneyBuddy: A Honeypot Architecture for Detecting IM Threats in the Wild.*
supervisors	Professor Evangelos Markatos
description	Design and implementation of HoneyBuddy, a honeypot like infrastructure for detecting malicious activities in IM networks.

Scientific Interests

Mobile Security, Network and Software Security, Honeypot Technologies, Internet Measurements

Academic Experience

Spring 2012, 2015	Teaching Assistant, CS459 – Internet Measurements, University of Crete
Sept. 2014	Lecturer at 2nd SysSec Summer School Program – Amsterdam, The Netherlands
Spring 2010, 2011	Teaching Assistant, CS455 – Cybersecurity Lab, University of Crete
Fall 2010, 2011	Teaching Assistant, CS345 – Operating Systems, University of Crete
Fall 2009	Teaching Assistant, CS240 – Data Structures, University of Crete

Participation in Excersizes

Nov. 2012	Malware-analysis competition "IWSEC Cup 2012" at IWSEC 2012 – Fukuoka, Japan
Nov. 2011	2nd National Cyber Defense Exercise – Greece (Panoptis 2011)
Nov. 2010	NATO Cyber Defence Exercise 2010 (NCDEX 2010) Cyber Coalition
May 2010	1st National Cyber Defense Exercise – Greece (Panoptis 2010)

Honors and Awards

Apr. 2017	Best Paper Honorable Mention evaluated by the Best Paper Honorable Mention Committee of the 26th International World Wide Web Conference (WWW 2017)
Apr. 2015	Travel grant for the EuroSys Conference held in Bordeaux, France.
Nov. 2012	Won the Gold Prize at Malware-analysis competition "IWSEC Cup 2012" at IWSEC 2012, in Fukuoka, Japan
Dec. 2009 – Oct. 2012	Graduate Research Fellowship, ICS-FORTH, Prof. Evangelos P. Markatos
Jul. 2009 – Sept. 2009	Undergraduate Research Fellowship, ICS-FORTH, Prof. Evangelos P. Markatos

Technical Skills

Operating Systems	MS Windows 2000/NT/XP/Vista, Linux, Unix, Android
Programming Languages	C, Java, Python, Ruby, UNIX shell scripts
Tools	MS Office, vim, ploticus, gnuplot, LaTeX, SVN, Git, IDA Pro
DBMS	MySQL

Publications

Elias Papadopoulos, Michalis Diamantaris, Panagiotis Papadopoulos, Thanasis Petsas, Sotiris Ioannidis, and Evangelos Markatos. **The Long-Standing Privacy Debate: Mobile Websites Vs Mobile Apps**. In *Proceedings of the 26th International World Wide Web Conference*, WWW '17, Perth, Western Australia, 2017.

Thanasis Petsas, Antonis Papadogiannakis, Michalis Polychronakis, Evangelos P. Markatos, and Thomas Karagiannis. **Measurement, Modeling, and Analysis of the Mobile App Ecosystem**. In *ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS) journal*, 2016.

Panagiotis Papadopoulos, Thanasis Petsas, Giorgos Christou, and Giorgos Vasiliadis. **MAD: A Middleware Framework for Multi-Step Attack Detection**. In *Proceedings of the 4th IEEE International Workshop on Building Analysis Datasets and Gathering Experience Returns for Security*, BADGERS '15, Kyoto, Japan, 2015.

Iasonas Polakis, Michalis Diamantaris, Thanasis Petsas, Federico Maggi, and Sotiris Ioannidis. **Powerslave: Analyzing the Energy Consumption of Mobile Antivirus Software**. In *Proceedings of the 12th Conference on Detection of Intrusions and Malware and Vulnerability Assessment*, DIMVA '15, Milano, Italy, 2015.

Thanasis Petsas, Giorgos Tsirantonakis, Elias Athanasopoulos, and Sotiris Ioannidis. **Two-factor Authentication: Is the World Ready? Quantifying 2FA Adoption**. In *Proceedings of the Eighth European Workshop on System Security*, EuroSec '15, Bordeaux, France, 2015.

Thanasis Petsas, Kazuya Okada, Hajime Tazaki, Gregory Blanc, and Pawel Pawlinski. **A Trusted Knowledge Management System for Multi-layer Threat Analysis**. In *Proceedings of the 7th International Conference on Trust and Trustworthy, TRUST '14 (Extended Abstract), Heraklion, Crete, Greece*, 2014.

Thanasis Petsas, Giannis Voyatzis, Elias Athanasopoulos, Michalis Polychronakis, and Sotiris Ioannidis. **Rage Against the Virtual Machine: Hindering Dynamic Analysis of Android Malware**. In *Proceedings of the Seventh European Workshop on System Security*, EuroSec '14, Amsterdam, The Netherlands, 2014.

Thanasis Petsas, Antonis Papadogiannakis, Michalis Polychronakis, Evangelos P. Markatos, and Thomas Karagiannis. **Rise of the Planet of the Apps: A Systematic Study of the Mobile App Ecosystem**. In *Proceedings of the 2013 Conference on Internet Measurement*, IMC '13, Barcelona, Spain, 2013.

Iasonas Polakis, Georgios Kontaxis, Spiros Antonatos, Eleni Gessiou, Thanasis Petsas, and Evangelos P. Markatos. **Using Social Networks to Harvest Email Addresses**. In *Proceedings of the 9th Annual ACM Workshop on Privacy in the Electronic Society*, WPES '10, Chicago, IL, 2010.

Iasonas Polakis, Thanasis Petsas, Evangelos P. Markatos, and Spyros Antonatos. **A Systematic Characterization of IM Threats Using Honeypots**. In *Proceedings of the Network and Distributed System Security Symposium, NDSS '10, San Diego, California, USA*, San Diego, CA, 2011.