Omar Alrawi

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Research Interests

Using system and network events to evaluate and improve the security of home-based smart devices, detect and measure threats against smart devices, and apply data science tools to automate and scale these methods.

EDUCATION

Ph.D. in Electrical and Computer Engineering Georgia Tech

Enrolled Atlanta, GA

May 2009

2019

Master of Arts in Linguistics (CERIAS) Purdue University West Lafayette, IN

Thesis: Ontological Semantics Spam Filters

Advisor: Dr. Victor Raskin

Bachelor of Science in Computer Science and Mathematics

May 2007 Purdue University West Lafayette, IN

Honors & AWARDS

Best Research Idea

Institute for Information Security & Privacy Demo Day

Award: \$5,000

Sophos

President Fellowship 2016, 2018

The President Fellowship is a supplement funding for PhD students with exemplary levels of scholarship and innovation.

Best Paper Award 2014

Workshop on Information Security Applications (WISA)

FORMER Positions Data Scientist (part-time)

January 2017 to December 2017 Abingdon, United Kingdom

June 2013 to August 2016 Sr. Engineer Qatar Computing Research Institute Doha, Qatar

Security Engineer October 2011 to June 2013

Security Intelligence - iDefense - Verisign Inc. Reston, VA

Consultant Booz Allen Hamilton

June 2009 to October 2011 Annapolis Junction, Maryland

Intern Engineer Cisco Systems

May 2007 to August 2007 San Jose, CA

PUBLICATIONS R. Duan, A. Bijlani, Y. Ji, O. Alrawi, Y. Xiong, M. Ike, B. Saltaformaggio, W. Lee. Automating Patching of Vulnerable Open-Source Software Versions in Application Binaries. To appear in The Network and Distributed System Security Symposium (NDSS). 2019.

> Omar Alrawi, Chaz Lever, Manos Antonakakis, Fabian Monrose. SoK: Security Evaluation of Home-Based IoT Deployments, To appear in IEEE Security and Privacy (Oakland). 2019.

> Omar Alrawi, Aziz Mohaisen. Chains of Distrust: Towards Understanding Certificates Used for Signing Malicious Applications. In Workshop on Empirical Research Methods in Information Security co-located with WWW. 2016.

> Aziz Mohaisen, Omar Alrawi. Behavior-based Automated Malware Analysis and Classification. In Elsevier Computers & Security. 2015.

> A Mohaisen, AG West, A Mankin, O Alrawi. Chatter: Classifying Malware Families Using System Event Ordering. In IEEE Conference on Communications and Network Security (CNS). 2014.

> Aziz Mohaisen, Omar Alrawi. AMAL: High-Fidelity, Behavior-based Automated Malware Analysis and Classification. In Workshop on Information Security Applications (WISA). 2014.

> Aziz Mohaisen, Omar Alrawi. AV-Meter: An Evaluation of Antivirus Scans and Labels. In Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA). 2014.

> Aziz Mohaisen, Omar Alraw, Andrew G. West, and Allison Mankin. Babble: Identifying Malware by Its Dialects. In *IEEE Conference on Communications and Network Security (CNS)*. 2013.

> Aziz Mohaisen, Omar Alrawi, Matt Larson, and Danny McPherson. Towards A Methodical Evaluation of Antivirus Scans and Labels. In Workshop on Information Security Applications (WISA). 2013.

> Aziz Mohaisen, Omar Alrawi. Unveiling Zeus Automated Classification of Malware Samples. In Workshop on Simplifying Complex Networks for Practitioners co-located with WWW. 2013.

Patents

Systems and methods for behavior-based automated malware analysis and classification

Patent Number: US9769189B2

Granted: 2017-09-19