

# 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	<b>Ph.D. in Electrical and Computer Engineering</b> Georgia Tech	Enrolled Atlanta, GA
	<b>Master of Arts in Linguistics (CERIAS)</b> Purdue University Thesis: <i>Ontological Semantics Spam Filters</i> Advisor: Dr. Victor Raskin	May 2009 West Lafayette, IN
	<b>Bachelor of Science in Computer Science and Math</b> Purdue University	May 2007 West Lafayette, IN
HONORS & AWARDS	<b>First Place - Research Track</b> Cyber Security Demo Day Final Award: \$4,000	2019
	<b>Best Research Idea</b> Institute for Information Security & Privacy Demo Day Award: \$5,000	2019
	<b>President Fellowship</b> The President Fellowship is a supplement funding for PhD students with exemplary levels of scholarship and innovation.	2016, 2018
	<b>Best Paper Award</b> Workshop on Information Security Applications (WISA)	2014
FORMER POSITIONS	<b>Data Scientist (part-time)</b> Sophos	January 2017 to December 2017 Abingdon, United Kingdom
	<b>Sr. Engineer</b> Qatar Computing Research Institute	June 2013 to August 2016 Doha, Qatar

**Security Engineer**  
Security Intelligence - iDefense - Verisign Inc.

October 2011 to June 2013  
Reston, VA

**Consultant**  
Booz Allen Hamilton

June 2009 to October 2011  
Annapolis Junction, Maryland

**PUBLICATIONS** **Omar Alrawi**, Chaoshun Zuo, Ruian Duan, Ranjita Kasturi, Zhiqiang Lin, Brendan Saltaformaggio. The Betrayal At Cloud City: An Empirical Analysis Of Cloud-Based Mobile Backends, In *USENIX Security Symposium (USENIX SEC)*. 2019.

**Omar Alrawi**, Chaz Lever, Manos Antonakakis, Fabian Monroe. SoK: Security Evaluation of Home-Based IoT Deployments, In *IEEE Security and Privacy (Oakland)*. 2019.

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. In *The Network and Distributed System Security Symposium (NDSS)*. 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