

MAHMOUD HAMMAD

Software Engineering, Ph.D. Candidate
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EDUCATION

PhD in Software Engineering University of California, Irvine	GPA: 4.0 Expected: September 2018
Master of Science in Software Engineering George Mason University, Fairfax, VA	GPA: 3.93 January 2014
Graduate Certificate in Web-Based Software Engineering George Mason University, Fairfax, VA	Fall 2013
Bachelor of Science in Computer Science Yarmouk University, Irbid, Jordan	GPA: 3.76 August 2005

RESEARCH INTERESTS

- Software Engineering, Mobile Security, Self-Adaptive Software Systems, Machine Learning

AWARDS & HONORS

- SIGSOFT CAPS Travel grant to attend ICSE 2016
- Outstanding student achievement award – GMU, 2013
- Ranked 1st among the 50 students who graduated on the same term
- Honor student list (Dean's List) – Several times during my bachelor
- Fellowship from Jordan University of Science & Technology, 2012 – 2016
- Graduate Research Assistant scholarship from GMU
- Graduate Student Researcher from UCI
- Graduate Teaching Assistant from UCI

PUBLICATIONS

- **Mahmoud Hammad**, Joshua Garcia, and Sam Malek.
SALMA: Self-Protection of Android Systems from Inter-Component Communication Attacks.
The 33rd IEEE/ACM International Conference on Automated Software Engineering (ASE 2018),
September 2018, Montpellier, France. (21% acceptance rate)
- Joshua Garcia, **Mahmoud Hammad**, and Sam Malek.
Lightweight, Obfuscation-Resilient Detection and Family Identification of Android Malware.
International Conference of Software Engineering (ICSE), Journal-first, May 2018, Gothenburg, Sweden.
- **Mahmoud Hammad**, Joshua Garcia, and Sam Malek.
A Large-Scale Empirical Study on the Effects of Code Obfuscations on Android Apps and Anti-Malware Products.
International Conference of Software Engineering (ICSE), May 2018, Gothenburg, Sweden. (20% acceptance rate)

- **Mahmoud Hammad**, Hamid Bagheri, and Sam Malek.
DELDroid: Determination and Enforcement of Least-Privilege Architecture in Android.
Journal of Systems and Software (submitted on October 1, 2017)
Institute for Software Research, University of California, Technical report # UCI-ISR-18-2
- Joshua Garcia, **Mahmoud Hammad**, and Sam Malek.
Lightweight, Obfuscation-Resilient Detection and Family Identification of Android Malware.
ACM Transactions on Software Engineering and Methodology (TOSEM). Volume 26, No. 3, Article 11 (January 2018)
 - **Integrated in the Software Assurance Marketplace (SWAMP) operated by University of Wisconsin–Madison**
- Joshua Garcia, **Mahmoud Hammad**, Negar Ghorbani, and Sam Malek.
Automatic Generation of Inter-Component Communication Exploits for Android Applications.
European Software Engineering Conference and ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE), September 2017, Paderborn, Germany. (24% acceptance rate)
- **Mahmoud Hammad**, Hamid Bagheri, and Sam Malek.
Determination and Enforcement of Least-Privilege Architecture in Android.
International Conference of Software Architecture (ICSA 2017), Gothenburg, Sweden, April 2017. (22% acceptance rate)
 - *Nominated as best paper (6 out of 95 submissions) and invited to the Journal of Systems and Software (JSS)*

EMPLOYMENT HISTORY

January 2016 - Present	Researcher at Software Engineering & Analysis Lab University of California, Irvine
August 2016 - December 2016	Graduate Teaching Assistant University of California, Irvine
August 2015 - August 2016	Researcher at Software Engineering & Analysis Lab University of California, Irvine
January 2015 - July 2015	Researcher at System Design & Analysis Lab George Mason University Fairfax, VA
May 2013 – December 2014	Mobile Developer The Helen A. Keller Institute Fairfax, VA
April 2006 – December 2011	Senior Oracle Application Developer Computer & Information Center Jordan University of science & technology Irbid, Jordan
August 2005 – March 2006	Software Engineer JoVal for IT Amman, Jordan

FORMAL PRESENTATIONS

- Invited talk: DELDroid: Determination and Enforcement of Least-Privilege Architecture in Android. OC I.E.E.E CyberSecurity. Tustin, CA. March 2017.

JOURNAL REFEREE

- Journal of Software: Practice and Experience, 2018

PROGRAM COMMITTEE

- Program Committee Member, Artifact Evaluation Committee, 13th International Symposium on Software Engineering for Adaptive and SelfManaging Systems ([SEAMS 2018](#)), Gothenburg, Sweden, May 2018
- Program Committee Member, Artifact Evaluation Committee, 12th International Symposium on Software Engineering for Adaptive and SelfManaging Systems ([SEAMS 2017](#)), Buenos Aires, Argentina, May 2017
- Member, Resilient Autonomic Software Systems ([RASS](#)) project, a group of researchers from UCI and George Mason University (GMU) working on conceptualizing a framework called RASS for self-managing autonomic systems.

REVIEWER SERVICE

- The 12th Workshop on Distributed Software Development, Software Ecosystems and Systems-of-Systems ([WDES](#)), 2018
- The 12th European Conference on Software Architecture ([ECSA](#)), 2018
- The 12th IEEE International Conference on Self-Adaptive and Self-Organizing Systems ([SASO](#)), 2018
- 13th International Symposium on Software Engineering for Adaptive and SelfManaging Systems ([SEAMS 2018](#)), Gothenburg, Sweden, May 2018.
- The 1st International Workshop on App Market Analytics ([WAMA](#)), 2016
- The 13th IEEE International Conference on Autonomic Computing ([ICAC](#)), 2016
- The 10th IEEE International Conference on Self-Adaptive and Self-Organizing Systems ([SASO](#)), 2016
- 4th IEEE/ACM International Conference on Mobile Software Engineering and Systems ([MOBILESoft](#)), 2017
- 11th European Conference on Software Architecture ([ECSA](#)), 2017
- 2nd eCAS Workshop on Engineering Collective Adaptive Systems ([eCAS](#)), co-located with [SASO](#), 2017

TECHNICAL SKILLS

Design Method & Pattern	COMET Design method using UML 2
UML and Architecture Design Tools	Microsoft Visio, Rational Rose, Visual Paradigm
Software Development Platforms	MS .NET framework, Oracle ADF Jdeveloper 11g, Eclipse, Net Beans
Programming Language	Java, Objective-C, C#, ASP.NET, VB .NET, Oracle SQL/PLSQL, HTML 5, JavaScript, Java EJB 3, Python
Business Intelligence Packages	Oracle BI Discoverer, Oracle BI Designer
Databases	Oracle DBMS, MS SQL, MySQL
Implementation Architecture	MVC architecture using java servlet and struts 2
Mobile Development	Android app development, iOS app development
Web Services	SOAP, RESTful
Network Tools	WireShark, Snort, iptable

TRAINING & CERTIFICATES

- Oracle PL/SQL Developer Certified Associate (OCA).
- C#.NET 2005 at JUST, Irbid, Jordan.
- ASP.NET 2005 at JUST, Irbid, Jordan.

- Microsoft Office SharePoint Server 2007 Configuration at JUST, Irbid, Jordan.
- UML modeling using rational rose at JUST, Irbid, Jordan.
- Project Management Training and Certification Program at Method Corporation using PMI standards.
- Microsoft Project Using PMI Best Practices at Method Corporation, Irbid, Jordan