

Umar Iqbal

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Research Interests Security, Privacy, Malware Detection, Data Driven Analysis.

Education **PhD, Computer Science** **Fall 2016-present**
The University of Iowa

Bachelor of Science, Computer Science **2009-2013**
National University of Computer & Emerging Sciences (NUCES), Pakistan
Senior Project: Watchdog: Task Management, Monitoring and Analysis

Publications **Malware Slums: Measurement and Analysis of Malware on Traffic Exchanges**
S. Yousaf, **U. Iqbal**, S. Farooqi, R. Ahmad, Z. Shafiq, F. Zaffar.
IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), 2016

Research Projects **Malware Slums: Measurement and Analysis of Malware on Traffic Exchanges**
Supervisors: Prof. Zubair Shafiq (The University of Iowa), Prof. Fareed Zaffar (LUMS)

We did a measurement study of traffic exchanges over several months and presented a first of its kind analysis of the different types of malware traffic being propagated through these traffic exchanges. Overall, we found that more than 26% of web pages surfed on traffic exchanges were malicious. The paper is published at IEEE/IFIP DSN 2016.

Adblocking and Anti-Adblocking

Supervisor: Prof. Zubair Shafiq (The University of Iowa)

Adblocking has become a concern for services that rely on advertising revenues. Unfortunately due to lucrativity, online advertisement is attractive target for various type of abuses, such as online tracking. Adblockers serve as a tool that protect user privacy by blocking these advertisements. Advertising industry sees adblockers as a threat to their business and they've strated fighting back with anti-adblockers. These anti-adblockers can detect the presence of adblockers and they refuse to serve users who use ad-blockers. My current research is focused toward studying adblocking and anti-adblocking.

Professional Projects **RAFM - Revenue Assurance and Fraud management**

The system provides near real time data analytics to monitor revenue and fraud critical situations. It was developed for PTCL(Pakistan Telecommunication Company Limited) and it processed over one billion CDRs and almost 50+ GBs of data on daily basis along with the correlation of six different protocols.

V- Govern

V-Govern is a product of LMKT that provides solutions for E-Governance. My work was to provide search capability to the application, task was achieved using Apache Lucene. Different similarity models were used and relevance feedback was also incorporated.

PTCL Smartlink

An Android application based on SIP and XMPP protocols that works as a calling and IM solution (Same as Viber and Skype). Product is packaged for PTCL - Pakistan Telecommunication Company Limited.

Work Experience	Research Assistant University of Iowa, Iowa City, USA Computer Science Department - <i>Prof. Zubair Shafiq (The University of Iowa)</i> <i>Internet Research Lab</i>	August 2016 – Present
	Research Assistant Lahore University of Management Sciences, Lahore, Pakistan Computer Science Department - <i>Prof. Fareed Zaffar (PhD, Duke University)</i> <i>Systems and Security Group</i>	March 2016 – July 2016
	Solution Analyst LMKT Corporation Islamabad, Pakistan	October 2013 – February 2016
	R&D Consultant MRKS Media Vancouver, Canada	February 2013 – Present
Honors & Awards	CNS Student Grant CNS 2016, Philadelphia, PA USA, 2016. Secured student grant to participate in the conference.	
	USENIX Security Student Grant USENIX Security 2016, Austin, TX USA, 2016. Secured student grant to participate in the conference.	
	Winner PeaceTech Exchange PTX Conference, 2016. Worked on a peace building idea and won the funding to implement it.	
	Dean’s List of Honor, 2012-13 National University of Computer and Emerging Sciences, 2012-13. Was part of the university honor list, twice.	
Skills & Expertise	<i>Programming Languages</i> - Python, Java, C#, C/C++, SQL, Matlab. <i>Development Tools</i> - IBM i2 Enterprise Insight Analysis, IBM i2 Analysts Notebook, IBM Watson Content Analytics, IBM Cognos BI, Tableau, Microsoft SQL Server Integration - Reporting and Analysis Services. <i>Technologies</i> - SIP/XMPP, Apache Lucene, Enterprise Service Buss (ESB), WPF (XAML), WCF, Entity Framework, Hibernate. <i>Mobile Development</i> - Android, Windows Phone, Phonegap.	
References	Prof. Zubair Shafiq Assistant Professor, Department of Computer Science, The University of Iowa, Iowa City, IA, U.S.A. zubair-shafiq@uiowa.edu	
	Prof. Fareed Zaffar Assistant Professor, Department of Computer Science, Lahore University of Management Sciences (LUMS), Lahore, Pakistan. fareed.zaffar@lums.edu.pk	