

## Muhammad Imran

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### RESEARCH INTERESTS

Understanding the role of Social Media during mass convergence events by using big data analysis techniques such as text classification, data mining, and interactive machine learning.

### EDUCATION

*Ph.D. Computer Science* November 2009 - March 2013  
University of Trento, Trento, Italy,  
Concentration: Computer Science

*M.S. Computer Science* September 2005 - September 2007  
Mohammad Ali Jinnah University, Islamabad, Pakistan.  
Concentration: Computer Science

*B.S. Computer Science* January 2000 - December 2003  
Allama Iqbal Open University, Islamabad, Pakistan.  
Concentration: Computer Science

### HONORS & AWARDS

- Best Paper Award, ISCRAM conference, Baden-Baden, Germany, 2013.
- Recipient of scholarship from Opera Universitaria Italy, for four years (2009-2013) for pursuing PhD studies, 2009.
- Distinguish position (1st place) in Master of Science (Computer Science) Degree, 2007.
- 2nd prize in all Pakistan universities programming competition, 2006.

### SELECTED PUBLICATIONS

1. Muhammad Imran, Carlos Castillo, Ji Lucas, Patrick Meier, and Jakob Rogstadius. Coordinating Human and Machine Intelligence to Classify Microblog Communications in Crises. *11th International Conference on Information Systems for Crisis Response and Management*, 2014. Pennsylvania, USA.
2. Muhammad Imran, Carlos Castillo, Ji Lucas, Patrick Meier, and Sarah Vieweg. AIDR: Artificial Intelligence for Disaster Response. *WWW 2014 (companion)*, 2014, Seoul, Korea.
3. Muhammad Imran, Ioanna Lykourantzou, and Carlos Castillo. Engineering Crowdsourced Stream Processing Systems. *CoRR abs/1310.5463*, Oct 2013
4. Muhammad Imran and Carlos Castillo. Volunteer-powered Automatic Classification of Social Media Messages for Public Health in AIDR. *Public Health in the Digital Age workshop in WWW 2014*, 2014, Seoul, Korea.
5. Muhammad Imran, Shady Elbassuoni, Carlos Castillo, Fernando Diaz and Patrick Meier. Extracting Information Nuggets from Disaster-Related Messages in Social Media. *10th International Conference on Information Systems for Crisis Response and Management*, May 2013, Baden-Baden, Germany.

6. Muhammad Imran, Shady Elbassuoni, Carlos Castillo, Fernando Diaz and Patrick Meier. Practical Extraction of Disaster-Relevant Information from Social Media. *SWDM-2013 at WWW-2013*, May 2013, Rio de Janeiro, Brazil.
7. Soudip Roy Chowdhury, Muhammad Imran, Muhammad Rizwan Asghar, Si-hem Amer-Yahia and Carlos Castillo. Tweet4act: Using Incident-Specific Profiles for Classifying Crisis-Related Messages. *10th International Conference on Information Systems for Crisis Response and Management*, May 2013, Baden-Baden, Germany.
8. Muhammad Imran, Syed Zeeshan Haider Gillani and Maurizio Marchese. A Real-time Heuristic-based Unsupervised Method for Name Disambiguation in Digital Libraries. *JCDL-2013 WOSP*, July 2013, Indianapolis, USA.
9. Muhammad Imran, Stefano Soi, Felix Kling, Florian Daniel, Fabio Casati and Maurizio Marchese. On the Systematic Development of Domain-Specific Mashup Tools for End-Users. *ICWE-2012*, July 2012, Berlin, Germany.
10. Florian Daniel, Muhammad Imran, Stefano Soi, Antonella De Angeli, Christopher R. Wilkinson, Fabio Casati and Maurizio Marchese. Developing Mashup Tools for End-Users: On the Importance of the Application Domain. *International Journal of Next-Generation Computing (IJNGC)*, 2012.
11. Muhammad Imran, Felix Kling, Stefano Soi, Florian Daniel, Fabio Casati and Maurizio Marchese. ResEval Mash: A Mashup Tool for Advanced Research Evaluation. *WWW-2012*, 2012, France, Lyon.
12. Muhammad Imran, Florian Daniel, Fabio Casati, Maurizio Marchese. ResEval Mash: A Mashup Tool that Speaks the Language of the User. *CHI-2012*, 2012, Austin, USA.

## RESEARCH EXPERIENCE

### *PostDoctoral Researcher*

April 2013 - Now

Qatar Computing Research Institute, Doha, Qatar

Responsibilities: At QCRI, I mainly work on AIDR (Artificial Intelligence for Disaster Response) project as a researcher and technical lead. The focus of this research project is to use social media specifically microblogging platforms like Twitter during mass convergence events and humanitarian crises in an effort to mine, classify and extract actionable and tactical information that can help stakeholders gain situation awareness in time-sensitive situations.

### *Research Associate*

June 2012 September 2012

Qatar Computing Research Institute, Doha, Qatar

Responsibilities: I was mainly involved in two research works. First, real-time social media analysis to predict the life span of an article posted on Aljazeera news website. This involves examining various factors associated with the article such as social media exposure of the article; number of visits it receives during first few hours, etc. Second part of my work was related to the classification and extraction of useful information from disaster-related tweets for an effective disaster response, and on this work we published two papers.

### *PhD Scholar*

November 2009 March 2013

University of Trento, Trento, Italy

Responsibilities: As a PhD candidate, I mainly worked on the research direction of end-user development using Domain-Specific Mashups approach. The focus of this research work was to enable non-programmers, non-technical people to perform complex data aggregation, data processing and data analysis tasks effectively using Web 2.0 technologies.

*Java Developer (Internship)*

February 2009 May 2009

OKKAM, Trento, Italy

Responsibilities: At OKKAM, I worked with their research team to assist them analyzing big log files to investigate how complex systems operations execute under different circumstances. For example, this includes checking how much time a search query takes to find an entity in the OKKAM entities database, or why certain part of a query failed, etc.

*Java Developer/Database Administrator*

July 2007 August 2008

National University of Science & Technology (NUST), Islamabad, Pakistan

Responsibilities: At NUST, I was responsible for managing Oracle database mainly for administrative purposes like performance tuning, query execution, tuning execution plans.

## PROFESSIONAL ACTIVITIES

- Program Chair, ISCRAM-Med 2014 conference.
- Session Chair, PHDA 2014 workshop.
- Reviewer, ISCRAM 2014 conference.
- Reviewer, ICWE 2012 conference.
- Reviewer, WebSci 2014 conference.
- Professional member of ACM and ISCRAM communities.

## TEACHING EXPERIENCE

- *Service-Oriented Architecture & Applications*, course held by Prof. Maurizio Marchese at the University of Trento. 2010/2011
- *Laboratory for Service Design and Engineering*, course held by Prof. Maurizio Marchese at the University of Trento. 2011/2012

## CERTIFICATIONS

- *Oracle Certified Professional (OCP)*  
Major: Database Administrator  
California, USA

## TECHNICAL SKILLS

*Programming skills:* JAVA SE, JAVA EE, EJBs, JADE, Web services (RESTFul, SOAP), Hibernate, SAX, JAXB

*Database skills:* Oracle database, MySQL, MS SQL Server, Redis

## REFERENCES

- Dr. Carlos Castillo  
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Doha, Qatar.  
Email: ccastillo@qf.org.qa
- Dr. Patrick Meier  
Qatar Computing Research Institute  
Doha, Qatar.  
Email: pmeier@qf.org.qa
- Prof. Dr. Maurizio Marchese  
Department of Information Engineering and Computer Science  
University of Trento, Italy.  
Email: Maurizio.marchese@unitn.it