

HAMED ABDELHAQ

PERSONAL INFORMATION

Name: Hamed “Moh’d Tayseer” Abdelhaq.
Place/Date of Birth: Kuwait/September 8, 1982.
Nationality: Jordanian.
Marital Status: Married.

EDUCATION

PhD in Computer Science, Heidelberg University, Germany 2011 - 2016
THESIS - *Localized Events in Social Media Stream: Detection, Tracking, and Recommendation.*

Master in Computer Science, University of Jordan, Jordan 2005 - 2007
THESIS - *Performance Enhancement in Cache memory.*
GPA: 3.94/4.00

Bachelor in Computer Science, University of Jordan, Amman, Jordan 2001 - 2005
GPA: 3.98/4.00 (First-Class Honours)

General Secondary Education, King Talal Secondary school, Palestine. 2001
Average: 99.1/100 (ranked 1st in West Bank, Palestine)

PROFESSIONAL EXPERIENCE

Lecturer, An-Najah National University, Palestine. **Aug. 2016 – present**
Lecturing courses on Advanced programming, Operating systems, Web Development, and others.

Senior Data Analyst, moovel Group GmbH, Germany. **Oct. 2015 – July, 2016**
moovel offers new ways to connect the urban mobility ecosystem with three complementary products: moovel app, moovel transit and RideTap.

–Duties and Responsibilities:

- designing and implementing proof-of-concepts applications.
- employing machine learning techniques towards building intelligent systems.
- analyzing mobility data to uncover useful insights.

–Projects:

- *Personalized Place Recommendation*: Historical logs generated by moovel app are processed, aggregated, indexed, and utilized in providing personalized place auto-complete functionality.
- *Mobility Point Ranking*: Mobility points such as public transport stations are scored based on distance and usage frequency. The resulting scores are used to provide users with an ordered list of mobility points that match user preferences.

PhD Student and Research Assistant, Heidelberg University, Germany. **Oct. 2011 – Oct. 2015**
My research interests are in the areas of data mining, machine learning, and Natural Language Processing, with a particular focus on analyzing the spatio-temporal aspects of messages published via social media sites.

–Duties and Responsibilities:

- designing and implementing tools for crawling, storing, and indexing messages from social media.
- proposing algorithms/frameworks towards an effective and efficient detection and tracking of localized events from social media.
- building a map-based demo for event visualization.

- writing scientific papers and participating in data mining conferences.

–*Projects:*

- *EvenTweet*: We propose a 4-stage streaming approach, called EvenTweet, that incrementally digests the content of social media towards the detection and tracking of localized real-world events. Since event-related keywords are the main event entities, we deeply analyze their distribution over space and time and come up with effective and efficient solutions to arising spatio-temporal problems. EvenTweet allows for estimating the start time, location, and representing keywords of detected events at a fine-grained spatio-temporal resolution, where the event location is visualized using a map-based GUI.
- *Personalized Event Recommender System*: We propose a context-aware event recommendation system accounting for social, topical, and spatio-temporal features to provide personalized event recommendations. Our proposed model is built upon the well-known matrix factorization technique that proved effectiveness in the Netflix recommendation challenge (<http://www.netflixprize.com/>).

HIWI (Hilfswissenschaftler) - Software Developer

Nov. 2013 – Feb 2015

–*Projects:*

- *TWIPA*: Designing and implementing *TWIPA*, a Java GUI-based tool to access Twitter repositories, to retrieve tweets based on spatio-temporal and/or text queries (selection), to store tweets in MongoDB datasets, and to index the selected tweets. For more information see <http://dbs.ifi.uni-heidelberg.de/index.php?id=twipa>
- *Faculty Administration Portal*: Building a Web portal using WordPress CMS to manage the work load of faculty members.

Lecturer, An-Najah National University, Palestine.

Sept. 2007 – Mar. 2011

Lecturing courses on Advanced programming, Simulation, Web Development, Network Programming, Computer Algorithms, Introduction to Computer Science and others.

ASP.NET Web developer, Maktoob Group (Yahoo), Amman, Jordan.

June 2006 – Sept. 2007

Maktoob Group provides e-commerce services and solutions that offer Arabic and English Web content and community services through Maktoob.com. It is considered the region's largest Arabic Web portal. In 2009, Maktoob was acquired by Yahoo.

–*Duties and Responsibilities:*

- Building customizable Web user controls.
- Participating in project analysis, database design, and ERD building.
- Client-side programming using Javascript.
- Building general-purpose Windows Services for RSS feeds retrieval.

Windows Application Developer, Hybrid Solutions (HS), Jordan.

July 2005 – Oct. 2005

Hybrid Solutions is a software house providing FOREX Online Trading Platforms. Hybrid Solutions has adopted the latest technologies and standards to develop its Online Trading Platform, VertexFX.

–*Duties and Responsibilities:*

- Building components for VertexFX platform using Visual Basic.
- Oracle database manipulation.
- Client support.

TECHNICAL SKILLS

Languages: JAVA, C++, Visual Basic, Prolog, VB.NET, ASP.NET, nodejs

DBMSs: Microsoft SQL Server, Oracle, PostgreSQL, MySQL, MongoDB (NoSQL)

Web Development: ASP.NET, PHP, Codeigniter framework, JQuery, Javascript, CSS

Operating Systems: Windows, Linux

Statistical packages: R, Octave, Matlab

Machine Learning and NLP: Weka, Mallet, Stanford CoreNLP

OpenStreetMap Editor: JOSM (Java for OpenStreetMap)

Others: Elasticsearch, Kibana, Rational Rose, Microsoft office Word/Excel, Latex, TFS for Agile development environment

PUBLICATIONS

Hamed Abdelhaq, Michael Gertz and Ayser Armiti, *Efficient Online Extraction of Keywords for Localized Events in Twitter*, In Geoinformatica, April 2016, Springer.

Hamed Abdelhaq, *Localized Events in Social Media Streams: Detection, Tracking, and Recommendation.*, PhD Thesis, Faculty of Mathematics and Computer Science, February 2016.

Hamed Abdelhaq and Michael Gertz, *On the Locality of Keywords in Twitter Streams*, 5th ACM SIGSPATIAL International Workshop on GeoStreaming (IWGS 2014), Dallas-Texas, 2014. **BEST PAPER AWARD**

Hamed Abdelhaq, Michael Gertz, and Christian Sengstock, *Spatio-temporal Characteristics of Bursty Words in Twitter Streams*, 21 ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, Orlando-Florida, 2013.

Hamed Abdelhaq, Christian Sengstock and Michael Gertz, *EvenTweet: Online Localized Event Detection from Twitter*, 39th International Conference on Very Large Data Bases (VLDB), Trento-Italy, 2013. (demo paper)

Christian Sengstock, Michael Gertz, Florian Flatow and Hamed Abdelhaq, *A Probabilistic Model for Spatio-temporal Signal Extraction from Social Media*, 21 ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, Orlando-Florida, 2013

Christian Sengstock, Michael Gertz, Hamed Abdelhaq and Florian Flatow, *Reliable Spatio-temporal Signal Extraction and Exploration from Human Activity Records*, 13th International Symposium on Spatial and Temporal Databases, SSTD 2013. Munich-Germany, 2013. (demo paper)

Sami Serhan and Hamed Abdelhaq, *Improving cache hit ratio in the presence of jump instruction*, Advancement of Modeling and Simulation Techniques in Enterprises (A.M.S.E.). Vol. 13. N 3-4, 2008

Sami Serhan and Hamed Abdelhaq, *Block-separated replacement algorithm(BSRA)*, Advancement of Modeling And Simulation Techniques in Enterprises (A.M.S.E.). Vol. 51, N 1-2, 2008.

Sami Serhan and Hamed Abdelhaq, *Improving Cache Memory Utilization*, International Journal of Applied Mathematics and Computer Sciences. VOL. 4 NO. 2 2007 ISSN 1305-5313.

TRAINING COURSES

Successfully completed a Machine Language course provided by Stanford University through Coursera Inc, November 2013.

Successfully completed a Natural Language Processing course provided by Stanford University through Coursera Inc, December 2012.

A course in VB.NET as a part of Perfect Internet and Computer Program (PICP), University of Jordan, Amman, Jordan.

A course in Computer Maintenance as a part of Perfect Internet and Computer Program (PICP), University of Jordan, Amman, Jordan.

HONORS

- Research Grant for Doctoral Candidates and Young Academics and Scientists (DAAD)
- Palestinian National Authority Scholarship for top-ranked students

LANGUAGES

Arabic: Native

English: Professional Working Proficiency

German: Basic Communication Skills