

PERSONAL INFORMATION

**Mamoun Abu Helou**

Hizma, Jerusalem, west bank, Palestine.

+970 592 784208

mamoun.abuhelou@gmail.com; mabuhelou@pass.ps

skype mamounbest

<https://www.linkedin.com/in/mamoun-abu-helou-7b15b386>

Sex Male | Date of birth 24/12/1982 | Nationality Palestinian

**POSITION
& INTERESTS****Assistant Professor**

Data & Knowledge Engineering, e-Services, Semantic Web, Software Engineering and Computational Linguistics

ACADEMIC QUALIFICATION

- | | |
|-----------|--|
| 2013-2016 | Doctorate of Philosophy in Computer Science
Università degli Studi di Milano Bicocca, Italy

PhD Thesis : Cross-Lingual Mapping of Lexical Ontologies with Automatic Translation |
| 2006-2008 | Master of Science in Computing Systems Engineering
Politecnico di Milano University, Milano, Italy.

MSc. Thesis : Architecture For Genomic Data Import In An Integrated Data Warehouse |
| 2000-2005 | Bachelor of Science in Computer Engineering
Al-Quds University, Jerusalem, Palestine.

BSc. Project : Aid on PC for Visually Impaired using Adapted Hardware and Software |
| 1999-2000 | Secondary School (Tawjihi) Certificate, Scientific Stream
Al-Uma Secondary School, Jerusalem, Palestine. |

WORK EXPERIENCE

- | | |
|------------------------|---|
| Sept. 2016- to present | Assistant Professor
Department of Management Information systems, Al-Istiqlal University <ul style="list-style-type: none"> • Design and analysis of algorithm • Data structure • Software engineering • e-Government, e-security • Introduction to computer • Supervisor of BSc student • Project coordinator (university scientific research fund) |
| March-Aug 2016 | ITC Consultant
Continuing Education and Community Service Center, Al-Quds Open University <ul style="list-style-type: none"> • Proposal writing and Project Manager |
| Fall 2014 | Lecturer
Department of Computer Science, Birzeit University, Palestine. |

- Introduction to Computer and Programming
 - Co-supervisor of BSc. and MSc. students.
- 2012 - 2014 **Academic Researcher**
Birzeit University, Palestine.
- Architectural design for lexical database.
 - Establishing cross-language mapping framework between different lexical resources.
 - Project manager and proposal writing (SEIRA , and E-Government Projects)
- 2011-2012 **Software Engineer**
Bancor S.r.l. – via Luigi Vanvitelli 44, Milano
- Localization of Bancor products (scanners) to Arabic.
 - Forming a platform independent machine (Linux, MS Windows®)
- 2009-2011 **Research Assistant**
Dipartimento di Elettronica e Informazione, Politecnico di Milano University, Italy.
- Natural language Query Understanding: Mapping natural language queries to search services
- 2005-2006 **Teacher Assistant**
Computer Engineering Department, Al-Quds University. Palestine.
- Instructor of the Programming Lab, Digital Lab, Computer Architecture and Microprocessor Lab

Projects & Study Experience

- **PASS-DDDM (2018-to present)** Data-driven decision making framework Enhancing Policy and Decision making across Al-Istiqal University campus.
A university funded project that aims to explore Data in building Decision support system aiming to improve quality for education and managerial process at Al-Istiqal University.
- **EW-Shopp project (2017)** EW-Shopp (<http://www.ew-shopp.eu/>). The activities are carried out in cooperation with the AI & DB group at University of Milano-Bicocca .

Research Activity: [Research Cooperation] Cross-Lingual Semantic Annotation
The EW-Shopp, is an EU H2020 funded project, aims at deploying and hosting a data integration platform to ease these data integration tasks, by embedding shared data models, robust data management techniques and semantic reconciliation methods.

Technology Used: Java/J2EE, Apache Tomcat, MySQL, Lexical & Semantic resources.

Output: Cross-lingual semantic table annotation framework (ongoing)

- COMSODE Project (2015-2016)

COMSODE (<http://www.comsode.eu/>). The activities are carried out in cooperation with the AI & DB group at University of Milano-Bicocca .

Research Activity: [Research Assistant] Semantic Annotation

Datasets published in the web (e.g., RDF, Excel, CSV files) are expressed in different languages; this makes the integration and the access to this information more challenging. One of the main goals of this research activity is to develop cross-lingual mapping algorithms and tools that support the semantic interoperability and enable the data integration among datasets published in different languages.

Technology Used: Java/J2EE, Apache Tomcat, MySQL, Eclipse, Lexical & Semantic resources.

Output: Part of PhD research work & several research articles

- SIERA project (2012-2013)

SIERA (sina.birzeit.edu/SIERA). The activities are carried out in cooperation with BZU and the AI & DB group at University of Milano-Bicocca.

Research Activity: [Research Assistant, PhD Thesis] Constructing Lexical Semantic Resources.

I have been involved in the architectural design of the lexical database and developed algorithm for mapping between concepts expressed in different languages.

Technology Used: Java/J2EE, Apache Tomcat, MySQL, Eclipse, GATE, NLP tools, Lexical & Semantic Resources, and Protégé for building intelligent systems.

Output:

- Cross-lingual lexical mapping with local similarity optimization algorithm (abuhelou & palmonari, 2015a).
- ICLM: interactive Cross-lingual Mapping, a java based web tool for collecting multi user's feedback for mapping concepts across different languages.

- e-Government Lifelong Learning Consortium (2012)

Pal-Gov, an EU tempus project that aims to develop a set of contemporary knowledge materials by the Palestinian Universities, consistent with EU standards that will fulfill the needs of the national plans of Palestine to implement IT based solutions for e-Government.

Research Activity: [Research Assistant] ontology engineering, e-Services, interoperability framework.

I participated as a research assistant to support building the framework and support managing the project activities.

Technology Used: Java/J2EE, Apache Tomcat, MySQL, Eclipse, GATE, NLP tools, Lexical & Semantic Resources, and Protégé for building intelligent systems.

- Search Computing Project (2009-2011)

Search computing (<http://www.search-computing.it>). The activities in the area of search computing are carried out in cooperation with the database group at Politecnico di Milano.

Research Activity: [Research Assistant] Natural language Query Understanding
 Queries to a search computing system are presented in natural language, but they must be understood and mapped to the available search services. I have worked on NLP methods for mapping natural language queries to web search services, dealing with word sense disambiguation and query answering.

Technology Used: Java/J2EE, Apache Tomcat, MySQL, Eclipse, GATE, NLP tools, KB.

Output: Java based framework for Geo-Referenced Queries understanding (abuhelou, 2011a,b).

- Genome Functional INtegrated Discoverer (GFINDER) (2008)

GFINDER (<http://www.bioinformatics.polimi.it/GFINDER/>) . The activities were carried out in cooperation with the DB group at Politecnico di Milano.

Research Activity: [MSc thesis] Architecture For Genomic Data Import In An Integrated Data Warehouse
 The work highlights over the choice of the parsing methodology based on the data source file format (e.g., flat, text, and xml files), the implementation of the generic parsing procedure, the parsers implementation, the database schema validation with respect to the required data to be imported, the performance of these parsers; the query execution, the memory size limitation, and the multi thread execution, and finally the GFINDER Parser GUI.

Technology Used: Java, MySQL, PostgreSQL, Eclipse, NetBeans.

Outputs: GFINDER Parser, a Java based application (Msc thesis, 2008).

- BSc. Graduate project (2005)

Research Activity: [BSc. Graduate project]
 The Braille key board is used as an input device for those uses, these key are translated to the proper letter in an diacritics Arabic letter, this conversion done in three steps the first is to convert the corresponding Braille code to its Arabic corresponding letter, then after we got the Arabic sentence the diacriticsing for these word follow that and to put a fully diacritics sentences which then will be pronounced using a speech synthesizer, which is the last stage. This synthesizer is a TTS system by diaphones.

Technology Used: VB, MS Access, Speech Synthesizer Tools.

Output: AVIAHS Prototype

- BSc. Training Period (2004)

Palestine and Lyon's Universities Solidarity (PLUS) (<http://liris.cnrs.fr/~paiplus/>).

Research Activity: [BSc. Training Period]
 Working in developing the kernel part of an e-learning project environment dedicated to distance learning and providing an original experience based assistance to the learners.

Technology Used: VB, C#.

PERSONAL SKILLS

Computer skills

- Databases: MS Access, MySQL, Postgresql
- Information Quality Analyst SW: GATE for text engineering
- Programming Languages: Java/J2EE, Java script, VB, C/C++, JSP, UML
- Data Structure and Algorithm Analysis
- Web Application and Internetworking
- AI & Semantics: NLP parsers, knowledge bases, lexical databases, ontologies
- Platforms: Linux, MS Windows®

Courses I Can Teach

- Data Management : Databases and MIS
- Software Engineering
- Programming Languages : OOP, C/C++
- Semantic Web: Information Retrieval, Data Mining, Computational Linguistic and NLP
- Data Structure and Algorithm Analysis
- E-Government.
- Web Application and Internetworking
- Artificial Intelligent

Mother tongue

Arabic

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	B2	B2
Italian	A2	A1	B1	A2	A1

Levels: A1/2: **Basic user** - B1/2: **Independent user** - C1/2 **Proficient user**
 Common European Framework of Reference for Languages

Driving licence

B

ADDITIONAL INFORMATION

Publications

2017

Abu Helou, M., Palmonari, M. Multi-user Feedback for Large-scale Cross-lingual Ontology Matching. The 9th International Conference on Knowledge Engineering and Ontology Development KEOD, Madeira, Portugal (2017)

2016

Abu Helou, M., Palmonari, M., and Jarrar, M. Effectiveness of automatic translations for cross-lingual ontology mapping. *Journal of Artificial Intelligence Research*, Special Track on Cross-language Algorithms and Applications (2016).

2015

Abu Helou, M., and Palmonari, M. Cross-lingual lexical matching with word translation and local similarity optimization. In *Proceedings of the 10th International Conference on Semantic Systems, SEMANTiCS 2015, Vienna, Austria* (2015).

Abu Helou, M., and Palmonari, M. Upper bound for cross-lingual concept mapping with external translation resources. In *20th Natural Language Processing and Information Systems (NLDB 2015)*, vol. 9103 of LNCS. Springer (2015)

2014

Abu Helou, M. Towards constructing linguistic ontologies: Mapping framework and preliminary experimental analysis. In Proceedings of the Second Doctoral Workshop in Artificial Intelligence (DWA I 2014) An official workshop of *the 13th Symposium of the Italian Association for Artificial Intelligence (AI*IA 2014)*, Pisa, Italy. (2014).

Abu Helou, M., Palmonari, M., Jarrar, M., and Fellbaum, C. Towards building linguistic ontology via cross-language matching. In *Proceedings of the 7th International Conference on Global WordNet*, in Tartu (Estonia). (2014).

2013

Abu Helou, M., Jarrar, M., Palmonari, M., Salhi, A., Hicks, A., Bortoli, S., Roche, C., Fellbaum, C., Bouquet, P., and Yahya, A. Arabization and multilingual knowledge sharing. In SIERA Project 2.1 Deliverable (2013).

2012

Abid A., Tagliasacchi, M., and Abu Helou, M. Probabilistic Reporting for Top-K Queries. In Proc. of *the 3rd Italian Information retrieval Workshop (IIR-2012)*, Bari Italy (2012).

2011

Abu Helou, M., Ontology Based Segmentation of Geo-Referenced Queries, *First International Workshop on Search, Exploration and Navigation of Web Data Sources*. ICWE, Cyprus. (2011).

Abu Helou, M., Segmentation of Geo-Referenced Queries. *19th Italian Symposium on Advance Database Systems – SEBD*, Maratea, Italy. (2011)

2010

Abu Helou, M. Abid, A. Semantic Measures Based on WordNet using Multiple Information Sources. 2nd Int. joint conference on Knowledge Discovery, knowledge Engineering, and Knowledge Management IC3K/KDIR 2010, Valencia

Honours and awards

The Politecnico di Milano scholarship for MS.c degree.
The Palestinian Ministry of Higher Education scholarship for BS.c Degree.
Second place graduate, at Computer Engineering Dept. in BS.c degree.

Memberships

- Italian Association for Artificial Intelligence (AI*IA).
- Institute for systems and technologies of information control and communication (INSTICC)

Activities PC/Chairing

- (KEOD 2017) The 9th International Conference on Knowledge Engineering and Ontology Development
- (7th GWC'14 Panel Discussion) Cross-language mapping semantics, at 7th Global Wordnet Conference. January 25, 2014.
- (iArabic' 2014) the 3rd Palestinian Symposium on Computational Linguistics and Arabic Content . Birzeit University, Palestine. April 12, 2014
- (OnToContent 2013) the 9th International Workshop on Ontology Content Part of the OnTheMove Conferences & Workshops. Graz, Austria Sep 2013
- (iArabic' 2013) the 2nd Palestinian Symposium on Computational Linguistics and Arabic Content . Birzeit University, Palestine. April 20, 2013

Sub/reviewer

- (AJSE 2018) Arabian Journal for Science and Engineering.
- (KEOD 2018) The 10th International Conference on Knowledge Engineering and Ontology Development
- (ICIW 2018) The 11th International Conference on Internet and Web Applications and Services
- (KEOD 2017) The 9th International Conference on Knowledge Engineering and Ontology Development
- (ICIW 2017) The 12th International Conference on Internet and Web Applications and Services
- (KEOD 2016) The 8th International Conference on Knowledge Engineering and Ontology Development
- (ICIW 2016) The 11th International Conference on Internet and Web Applications and Services
- (ISWC-PD 2015) The 14th International Semantic Web Conference.
- (AIIA-DC 2014) The 13th Symposium of the Italian Association for Artificial Intelligence /Doctoral Consortium
- (MTSR2014) The 8th Metadata and Semantics Research Conference.
- (EKAW 2014) The 19th International Conference on Knowledge Engineering and Knowledge Management.
- (SITIS 2013) The 10th International Conference on Signal Image Technology and Internet Based Systems.
- (ISWC 2013) The 12th International Semantic Web Conference.
- (WI 2013) The IEEE/WIC/ACM International Conference on Web Intelligence.
- (COLING 2013) The 24th International Conference on Computational Linguistics.

Jan, 2019