# **RESUME**

#### PERSONAL INFORMATION

Name: Mohammed A. M. Maree

Nationality: Palestinian D.O.B: 29-07-1983

Marital Status: Married, 6 Children

**Address**: Jenin, Palestine **Mobile:** +970 594600953

Email 1: mohammed.maree@aaup.edu | Email 2: mohammedmaree@gmail.com

Webpage: <a href="https://www.aaup.edu/mohammed.maree">https://www.aaup.edu/mohammed.maree</a>

#### **EDUCATION**

## Monash University, Sunway Campus, Kuala Lumpur, Malaysia

Ph.D. in Information Technology

2008-2012

**Title:** "Semantically-enhanced Information Retrieval Model based on Multiple Merged and Dynamically Enriched Ontologies"

e-thesis:

https://bridges.monash.edu/articles/Semantically-

enhanced information retrieval model based on multiple merged and dynamically enriched ontologies/4664065

Maastricht School of Management, Maastricht, Holland Post Graduate Diploma in Managerial Control and MIS

2006-2006

The Arab American University, Jenin, Palestine Bachelor in Computer Science

2001-2005

## **EMPLOYMENT**

#### The Arab American University, Palestine

01/03/2014 - Current

http://www.aaup.edu/

The Arab American University, Palestine is the first private university in Palestine. It serves the educational needs inside and outside Palestine and offers excellent educational opportunities for students in various educational fields.

Academic Rank: Associate Professor of Information Technology

**Positions & Responsibilities:** 

Dean, Faculty of Information Technology.
Chairperson, Department of Multimedia Technology.

01/08/2023 - Current 01/09/2023 - Current

Assistant to Vice President for Academic Affairs & Full Time Lecturer, Information Technology Department. 01/08/2021 - 31/07/2023

Chairperson & Full Time Lecturer, Information Technology Department. 01/08/2019 - 01/08/2021
Full-time Lecturer at the Faculty of Engineering and Information Technology / Information Technology Department

Chairperson & Full Time Lecturer, Information Technology Department.

Chairperson, & Full Time Lecturer Computer Science and MSc in CS Programs.

Chairperson, & Full Time Lecturer Multimedia Technology Department.

01/08/2018 - 01/08/2018
01/09/2016 - 01/08/2018
01/09/2016 - 01/09/2016
01/09/2014 - 01/09/2016

Full Time Lecturer at the Faculty of Engineering and Information Technology / Multimedia Technology Department

01/03/2014 - 01/09/2014

Part-time Lecturer at the Faculty of Engineering and Information Technology / Multimedia Technology Department
01/09/2013 - 01/03/2014

#### Leaders Organization, Ramallah, Palestine

June. 2018 - Sep. 2019

http://www.leaders.ps/

Leaders organization supports developing entrepreneurship programs in Palestine. The organization offers a wide range of projects that are funded by a network of donor and beneficiary partners allowing to support economic development, sustainability, as well as the building of effective advocacy for many marginalized groups in Palestine.

Position & Responsibility: Consultant – Partner University Coordinator/Trainer for the Palestinian Startups Support Project (PASS) funded by the Korean International Cooperation Agency (KOICA)

#### SocialDice, Ramallah, Palestine

Mar. 2015 - Jul. 2015

https://socialdice.net

SocialDice offers online hiring solutions that are built to reinvent the hiring experience to a more hassle-free and artistic journey. The company employs sophisticated Natural Language Processing and Machine Learning algorithms to replace the conventional tedious process of hiring to an amusing, well-organized, and efficient procedure.

#### Position & Responsibility:

Providing consultancy services in the field of online recruitment, namely:

- NLP Processing
- Semantics-based Information Processing
- Feature Extraction and Categorization
- Matching and Ranking / Recommendation Algorithms

### Palestine Technical University, Tulkarm, Palestine

Feb. 2014 - July. 2014

http://www.ptuk.edu.ps/

Palestine Technical University is the first governmental technical university in the west bank, Palestine. The university grants the Bachelor Degree in Electrical Engineering, Physical Education, Technological Education, Industrial Automation and Computerized Banking & Financial Sciences.

#### **Position & Responsibility:**

Assistant Professor - Part-time Lecturer at the Faculty of Science and Arts / Applied Computing Department

#### Main Roles:

Teaching the following courses:

- Introduction to Multimedia
- Systems Analysis & Design

## Dimensions Consulting Company, Ramallah, Palestine

Dec. 2012 - Feb. 2014

http://dimensions-consulting.ps/

Dimensions Consulting is one of Palestine's most respected specialized management consulting companies that was established in 2007 by a group of experienced, professional, and highly-reputed consultants and business leaders with the vision of providing exceptional consulting and training services. The company offers a wide range of products, processes and services to support the business needs of companies and organizations.

#### Position & Responsibility:

## **Director of Research and Quality Assurance**

### **Main Roles:**

- Managing Consultancy Programs
- Developing and Designing Quality Metrics and Standards
- Conducting Research Activities related to Dimensions' I.T Projects such Dimension's Healthcare Information System and CRM System
- Developing I.T and Business Projects' Proposals and Plans
- Managing the Report Writing, M&E, and Quality Assurance team
- Managing connections between Dimensions and its clients

#### Monash University- Sunway Campus, Kuala Lumpur, Malaysia http://monash.edu.my/

2008 - 2010

## Position & Responsibility:

**Teaching Assistant** 

### Ministry of Higher Education, Jenin, Palestine

2005 - 2007

#### Position & Responsibility:

Teaching at Selat Al-Hartheia Secondary Boys School Member of the I.T. Course Study Committee

#### **ACADEMIC AWARDS**

Palestinian Islamic Bank Award for Scientific Research

2023

Research Excellence Award - "Teaching, Learning and Commerce in the Age of Technology and Artificial Intelligence" - 2nd Place

(\$1000)

Supervised Ph.D. Project: Article: "A hybrid deep learning and visualization framework for pushing behavior detection in pedestrian dynamics"

• Palestinian Islamic Bank Award for Scientific Research

Research Excellence Award – Postgraduate Research Studies at National Level – 2<sup>nd</sup> Place

(\$800)

Supervised Master Project entitled: "AN IOT BASED MONITORING AND CONTROLLING SYSTEM FOR WATER CHLORINATION TREATMENT"

 Zuhair Hijjawi Award for Excellence in Scientific Research Supervised Bachelor Project entitled: "Kermalik". 2019

Supervised Buenerer Freject Charles .

(\$666)

Palestine Polytechnic University and Palestinian Islamic Bank Award for Scientific Research
 Research Excellence Award – Postgraduate Research Studies at National Level – 2<sup>nd</sup> Place

2018

(\$2000)

Supervised Master Project entitled: "A HYBRID APPROACH TO CONCEPTUAL CLUSTERING AND

RANKING OF APPLICANT RESUMES TO THEIR CORRESPONDING JOB POSTINGS"

The Arab American University, Palestine

2018

Internal Research Fund Award - Cycle 2017/2018. (JD 7000)

**Research Project:** "Towards A Precision-Oriented Multi-Lingual Semantics-Based Cultural Heritage Recommender System"

Palestine Polytechnic University and Palestinian Islamic Bank Award for Scientific Research
 Research Excellence Award – Postgraduate Research Studies at National Level – 3<sup>rd</sup> Place
 (\$1000)

Supervised Master Project entitled: "Semantics-Based Online Recruitment System"

Erasmus+ - Capacity Building Programme - Field of Higher Education
 A project leaded by An-Najah National University in collaboration with Birzeit University,
 Islamic University in Gaza, The Arab American University, and Palestine Polytechnic University.
 (EUR 879,340)

Project Title: UniGov (Improving Governance Practices at Palestinian Higher Education Institutions).

The Arab American University, Palestine

2015

Internal Research Fund Award - Cycle 2 2014/2015. (JD 2500)

Research Project: Multiple Ontology-based Ad Serving - From Content to Context Advertising

Monash University, Sunway Campus, Kuala Lumpur, Malaysia

2011

Best Higher Degree by Research (HDR) Award. (MYR 1000)

**Paper:** "Mohammed Maree and Mohammed Belkhatir.: A Coupled Statistical/Semantic Framework for Merging Heterogeneous Domain-Specific Ontologies. In Proceedings of the 22<sup>nd</sup> International Conference on Tools with Artificial Intelligence (ICTAI'10), Arras, France, pp. 159-166, (2010).

Monash University, Sunway Campus, Kuala Lumpur, Malaysia
 Sessional Teaching Essentials Program (STEP) Award

2009

Monash University, Sunway Campus, Kuala Lumpur, Malaysia

2008

A scholarship for a Ph.D. position in Information Technology

**Ph.D. Title**: "Semantically-enhanced Information Retrieval Model based on Multiple Merged and Dynamically Enriched Ontologies"

Maastricht School of Management, Maastricht, Holland

2006

A scholarship for Post Graduate Diploma in Managerial Control and MIS

#### **RESEARCH INTERESTS**

- Information Indexing and Retrieval
- o Knowledge-based Information Representation and Management
- Data Mining & Artificial Intelligence
- Ouery Processing and Reformulation in the Context of Medical Information Retrieval
- Health Information Systems Developing Knowledge-based Diagnostic Systems
- o Automatic Ontology Construction and Merging
- Natural Language Processing
- o Adaptation techniques of Multimedia Learning Resources inside 3D virtual Learning Environments
- Semantics-based Online Recruitment
- o Internet of Things (IoT) and Smart Management Systems
- Machine Learning in the Context of Pedestrian Dynamics Analysis and Prediction
- Neural Networks and Deep Learning Models
- Semantics-based Contextual Advertising

#### **PUBLICATIONS**

## **Journal Articles:**

- 1. **Mohammed Maree**, Mujahed Eleyat and Shatha Rabaia: "An Empirical Evaluation of Adapting Hybrid Parameters for CNN-based Sentiment Analysis". Accepted for publication in Pertanika Journal of Science and Technology, **(2024)**, **SCOPUS**, **SJR 0.189**, **Q3**, **H-index 22**.
- Mohammed Maree, Rabee Al-Qasem, and Banan Tantour: "Transforming Legal Text Interactions: Leveraging Natural Language Processing and Large Language Models for Legal Support in Palestinian Cooperatives". Accepted for publication in International Journal of Information Technology, (2023), SCOPUS, SJR 0.442, Q1, H-index 23.
- Ahmad Alia, Mohammed Maree, Mohcine Chraibi, Anas Toma, and Armin Seyfried: "A Cloud-based Deep Learning Framework for Early Detection of Pushing at Crowded Event Entrances". IEEE Access, Volume: 11, Issue: 2023, pp. 45936-45949 (2023). Impact Factor = 3.476. SCOPUS, SJR 0.927, Q1, H-index 204. https://doi.org/10.1109/ACCESS.2023.3273770
- Mohammed Maree, Mujahed Eleyat, Shatha Rabaia, Mohammed Belkhatir.: "A Hybrid Composite Features based Sentence Level Sentiment Analyzer". IAES International Journal of Artificial Intelligence (IJ-AI), Volume: 12, Issue: 1, pp. 284-294, (2023). SCOPUS, SJR 0.35, Q2, H-index 11. <a href="http://doi.org/10.11591/iiai.v12.i1.pp284-294">http://doi.org/10.11591/iiai.v12.i1.pp284-294</a>
- Rudina Subaih, Mohammed Maree, Antoine Tordeux, Mohcine Chraibi.: "Questioning the Anisotropy of Pedestrian Dynamics: An Empirical Analysis with Artificial Neural Networks". Applied Sciences, Volume: 12, Issue: 15, pp. 1-13 (2022). Impact Factor = 2.838. SCOPUS, SJR 0.51, Q2, H-index 75. https://doi.org/10.3390/app12157563
- Ahmad Alia, Mohammed Maree and Mohcine Chraibi.: "A Hybrid Deep Learning and Visualization Framework for Pushing Behavior Detection in Pedestrian Dynamics". Sensors, Volume: 22, Issue: 11, pp. 1-25 (2022). Impact Factor = 3.576. SCOPUS, SJR 0.8, Q1, H-index 196. https://doi.org/10.3390/s22114040
- Saadat M. Alhashmi, Mohammed Maree, Zaina Saadeddin.: "Using Latent Dirichlet Allocation and Text Mining Techniques for Understanding Medical Literature". International Journal of Computing, Vol. 20, issue 4, (2021). SCOPUS, SJR 0.31, Q2, H-index 14. https://doi.org/10.47839/ijc.20.4.2437
- Khalid Rabayah, Mohammed Maree and Saadat M. Alhashmi.: "Cultural Factors that Influence the Adoption of E-commerce: A Palestinian Case Study". Information Development Journal, Volume: 38, Issue: 4, pp. 623-640, (2021). Impact Factor = 2.079. SCOPUS, SJR 0.55 Q1, H-index 22. https://doi.org/10.1177/02666669211006887
- Ahmad Alia, Mohammed Maree and Mohcine Chraibi.: "On the Exploitation of GPS-based Data for Real-time Visualization of Pedestrian Dynamics in Open Environments". Behaviour & Information Technology Journal, Volume: 41, Issue: 8, pp. 1709-1723, (2021). Impact Factor = 3.156. SCOPUS, SJR 0.70 Q1, H-index 81.
   https://doi.org/10.1080/0144929X.2021.1896781
- Mohammed Maree, Amjad Rattrout, Muhanad Altawil and Mohammed Belkhatir.: "Multi-modality Search and Recommendation on Palestinian Cultural Heritage based on the Holy-Land Ontology and Extrinsic Semantic Resources". ACM Journal on Computing and Cultural Heritage (JOCCH), Volume: 14, Issue: 3, pp. 1-23, (2021). Impact Factor = 1.727. SCOPUS, SJR 0.59 Q1, H-index 21. https://doi.org/10.1145/3447523
- Ahmad Ewais, Rami Hodrob, Mohammad Maree, Sirien Jaradat.: "Mobile Learning Application for Helping Pupils in Learning Chemistry". International Journal of Interactive Mobile Technologies, Volume: 15, Issue: 1, pp. 105-118, (2021). SCOPUS, SJR 0.31 Q3, H-index 12. https://doi.org/10.3991/ijim.v15i01.11897
- Mohammed Maree: "Semantics-based Key Concepts Identification for Documents Indexing and Retrieval on the Web". International Journal of Innovative Computing and Applications, Volume: 12, Issue: 1, pp. 1-12, (2021). SCOPUS, SJR 0.21 Q3, H-index 13. https://dx.doi.org/10.1504/IJICA.2021.113608

- 13. **Mohammed Maree** and Mujahed Elyat.: "Semantic Graph based Term Expansion for Sentence-Level Sentiment Analysis". International Journal of Computing, Vol. 19 No. 4 (**2020**). **SCOPUS, SJR 0.31, Q2, H-index 14.** <a href="https://www.computingonline.net/computing/article/view/2000">https://www.computingonline.net/computing/article/view/2000</a>
- Mohammed Maree, Rami Hodrob, Mohammed Belkhatir and Saadat M. Alhashmi.: "A Knowledge-based Model for Semantic Oriented Contextual Advertising". KSII Transactions on Internet and Information Systems Journal, Volume: 14, Issue: 5 (2020), pp. 2122-2140. Impact Factor = 0.711. SCOPUS, SJR 0.19, Q3, H-index 20. <a href="https://doi.org/10.3837/tiis.2020.05.014">https://doi.org/10.3837/tiis.2020.05.014</a>
- Mohammed Maree.: "Multimedia Context Interpretation: A Semantics-based Cooperative Indexing Approach".
   Accepted for publication in New Review of Hypermedia and Multimedia Journal, (2020), Impact Factor = 0.867
   Scopus Q1, H-index = 28, SJR = 0.46.
   https://doi.org/10.1080/13614568.2020.1745904
- 16. Mohammed Maree, Israa Noor, Khaled Rabayah, Mohammed Belkhatir, and Saadat M Alhashmi.: "Head Concepts Selection for Verbose Medical Queries Expansion". IEEE Access Journal, Volume: 8, Issue: April (2020), pp. 93987 93999. Impact Factor = 4.098. SCOPUS, SJR 0.61, Q1, H-index 56. <a href="https://doi.org/10.1109/ACCESS.2020.2987568">https://doi.org/10.1109/ACCESS.2020.2987568</a>
- Rudina Subaih, Mohammed Maree, Mohcine Chraibi, Sami Awad, Tareq Zanoon.: "Experimental Investigation on the Alleged Gender-differences in Pedestrian Dynamics: A Study Reveals No Gender Differences in Pedestrian Movement Behavior". IEEE Access Journal, Volume: 8, Issue: Feb (2020), pp. 33748 - 33757. Impact Factor = 4.098. SCOPUS, SJR 0.61, Q1, H-index 56. https://doi.org/10.1109/ACCESS.2020.2973917
- Mohammed Maree, Aseel Kmail, Mohammed Belkhatir.: "Analysis and shortcomings of e-recruitment systems: Towards a semantics-based approach addressing knowledge incompleteness and limited domain coverage". Journal of Information Science: Volume: 45, Issue: 6, (2018), pp. 713-735. Impact Factor = 1.939. SCOPUS, SJR 0.64 Q1, H-index 57. <a href="https://doi.org/10.1177/0165551518811449">https://doi.org/10.1177/0165551518811449</a>.
- Mohammed Maree, Isra Noor, Khalid Rabayah.: "Experimental Evaluation of Query Reformulation Techniques in the Context of Medical Information Retrieval". Journal of Theoretical and Applied Information Technology. Volume: 96, Issue: 24, (2018), pp. 8434-8444. SCOPUS, SJR 0.17 Q3, H-index 25, http://www.jatit.org/volumes/Vol96No24/27Vol96No24.pdf
- Mohammed Maree and Mohammed Belkhatir.: "Addressing Semantic Heterogeneity through Multiple Knowledge base Assisted Merging of Domain-specific Ontologies". In Knowledge-based Systems (KBS) journal, Volume: 73, Issue: Jan (2015), pp. 199-211. Impact Factor: 5.101, 5-Year Impact Factor: 5.358. SCOPUS, SJR 1.46 Q1, H-index 94. <a href="https://doi.org/10.1016/j.knosys.2014.10.001">https://doi.org/10.1016/j.knosys.2014.10.001</a>
- Mohammed Maree and Mohammed Belkhatir.: "Coupling semantic and statistical techniques for dynamically enriching web ontologies". Journal of Intelligent Information Systems (JIIS), Volume: 40, Issue:3 (2013), pp. 455-478. Impact Factor: 1.589, 5-Year Impact Factor: 1.667. SCOPUS, SJR 0.42 Q2, H-index 49. https://doi.org/10.1007/s10844-012-0233-4.
- Mohammed Maree, Saadat M. Alhashmi and Mohammed Belkhatir.: "Towards Improving Meta-Search through Exploiting an Integrated Search Model". In Journal of Information and Knowledge Management (JIKM) Volume: 10, Issue: 4 (2011), pp. 379-391. SCOPUS, SJR 0.19 Q3, H-index 17, https://doi.org/10.1142/S0219649211003073
- 23. Mohammed Maree and Mohammed Belkhatir.: "On the Merging of Domain-Specific Heterogeneous Ontologies using WordNet and Web Pattern-Based Queries". In Journal of Information and Knowledge Management (JIKM) Volume: 10, Issue: 1 (2011), pp. 23-36. SCOPUS, SJR 0.19 Q3, H-index 17, <a href="https://doi.org/10.1142/S0219649211002808">https://doi.org/10.1142/S0219649211002808</a>

#### **Conference Papers:**

- Kefaya Sabaneh, Momen Abu Salameh, Fatima Khaleel, Mohammad M. Herzallah, Joman Y. Natsheh, and Mohammed Maree.: "Early Risk Prediction of Depression Based on Social Media Posts in Arabic". Proceedings of the IEEE 35th International Conference on Tools with Artificial Intelligence (ICTAI), pp 595-602, Atlanta, GA, USA (2023).
  - http://dx.doi.org/10.1109/ICTAI59109.2023.00094
- Ahmaed Alia, Mohammed Maree, Mohcine Chraibi.: "A Novel Voronoi-based Convolutional Neural Network Approach for Crowd Video Analysis and Pushing Person Detection". Proceedings of the Helmholtz AI Conference, Abstract #38 | Oral and Poster presentation, pp 1-2. Hamburg, Germany, (2023). http://dx.doi.org/10.34734/FZJ-2023-02439
- Ahmaed Alia, Mohammed Maree, Mohcine Chraibi.: "A Fast Hybrid Deep Neural Network Model for pushing behavior detection in human crowds". Proceedings of the IEEE/ACS 19<sup>th</sup> International Conference on Computer Systems and Applications (AICCSA), pp 1-2. Abu Dhabi, United Arab Emirates, (2022). https://doi.org/10.1109/AICCSA56895.2022.10017883
- Rudina Subaih, Mohammed Maree, Mohcine Chraibi, Sami Awad, Tareq Zanoon.: "Gender-based Insights into the Fundamental Diagram of Pedestrian Dynamics". Proceedings of the 11<sup>th</sup> International Conference on Computational Collective Intelligence, pp 613-624. published by Springer LNCS/LNAI, Hendaye, France, (2019). https://doi.org/10.1007/978-3-030-28377-3
- Rami Hodrob, Ahmed Ewais, Mohammed Maree. "On Developing a Framework for Knowledge-Based Learning Indicator System in the Context of Learning Analytics". In: Czarnowski I., Howlett R., Jain L. (eds) Intelligent Decision Technologies 2019. Smart Innovation, Systems and Technologies, vol 142. Springer, Singapore. (2019). <a href="https://doi.org/10.1007/978-981-13-8311-3">https://doi.org/10.1007/978-981-13-8311-3</a>
- Nael Zidan, Mohammed Maree, Subhi Samhan.: "An IoT Based Monitoring and Controlling System for Water Chlorination Treatment". Proceedings of the 2<sup>nd</sup> International Conference on Future Networks and Distributed Systems. ACM, May, (2018). https://doi.org/10.1145/3231053.3231084
- Ihab Nasra and Mohammed Maree.: "On the Use of Arabic Stemmers to Increase the Recall of Information Retrieval Systems". Proceedings of the 13<sup>th</sup> International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2017). Guilin, China, pp 2462-2468, (2017). https://doi.org/10.1109/FSKD.2017.8393161
- Abeer Zaroor, Mohammed Maree, Muath Sabha.: "JRC: A Job Post and Resume Classification System for Online Recruitment". In the Proceedings of the 29<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Boston, MA, USA, pp. 780 - 787, (2017). https://doi.org/10.1109/ICTAI.2017.00123
- Abeer Zaroor, Mohammed Maree, Muath Sabha.: "A Hybrid Approach to Conceptual Classification and Ranking of Resumes and their Corresponding Job Posts". Proceedings of the 9<sup>th</sup> KES International Conference on Intelligent Decision Technologies (KES-IDT 2017), Vilamoura, Portugal, pp 107-119, (2017). https://doi.org/10.1007/978-3-319-59421-7\_10
- 10. Ahmed Ewais, **Mohammed Maree**, Olga De Troyer, Bayan Kharraz: "Audio and Video Adaptation Inside 3D Virtual Learning Environments". Proceeding of the 8<sup>th</sup> International Conference on eLearning (eLearning-2017), Belgrade, Serbia, Sep, pp 77-81, (**2017**).
- 11. **Mohammed Maree**, Mohammed Belkhatir, Fariza Fauzi, Aseel Kmail, Ahmad Ewais, Muath Sabha.: "Multiple Ontology-based Indexing of Multimedia Documents on the World Wide Web". Proceedings of the 8<sup>th</sup> KES International Conference on Intelligent Decision Technologies (KES-IDT 2016). Tenerife, Spain, pp 51-62, (**2016**). <a href="https://doi.org/10.1007/978-3-319-39627-9">https://doi.org/10.1007/978-3-319-39627-9</a> 5
- Aseel Kmail, Mohammed Maree, Mohammed Belkhatir, Saadat, M. Alhashmi.: "An Automatic Online Recruitment System based on Exploiting Multiple Semantic Resources and Concept-relatedness Measure"s. In the Proceedings of the 27<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI'15), Vietri sul Mare, Salerno, Italy, pp. 620 – 627, (2015). https://doi.org/10.1109/ICTAI.2015.95

- 13. Aseel Kmail, **Mohammed Maree**, and Mohammed Belkhatir.: "MatchingSem: Online Recruitment System based on Multiple Semantic Resources". In the Proceedings of the 12<sup>th</sup> International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'15), pp. 2654 2659, (**2015**). https://doi.org/10.1109/FSKD.2015.7382376
- 14. **Mohammed Maree**, Saadat M. Alhashmi, Mohammed Belkhatir, Andre Hawit.: "Automatic Construction of a Domain independent Knowledge Base from Heterogeneous Data Sources". In Proceedings of the 9<sup>th</sup> International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'12), Chongqing, China, pp. 1483-1488, (**2012**). <a href="https://doi.org/10.1109/FSKD.2012.6234188">https://doi.org/10.1109/FSKD.2012.6234188</a>
- 15. **Mohammed Maree**, Saadat M. Alhashmi and Mohammed Belkhatir.: "A Unified Ontology Merging and Enrichment Framework". In Proceedings of the 23<sup>rd</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI' 11), Boca Raton, Florida, USA, pp.669 674, (**2011**). https://doi.org/10.1109/ICTAI.2011.106
- Mohammed Maree, Saadat M. Alhashmi and Mohammed Belkhatir.: "QuerySem: Deriving Query Semantics Based on Multiple Ontologies". In Proceedings of the 12<sup>th</sup> International Conference on Web-Age Information Management (WAIM 2011), Wuhan, China. LNCS 6897, pp. 157–168, (2011). https://doi.org/10.1007/978-3-642-23535-1 15
- 17. **Mohammed Maree**, Mohammed Belkhatir and Saadat M. Alhashmi.: "General-Purpose Ontology Enrichment from the WWW". In Proceedings of the 12<sup>th</sup> International Conference on Web-Age Information Management (WAIM 2011). Wuhan, China, LNCS 6897, pp. 144 –156, (**2011**). <a href="https://doi.org/10.1007/978-3-642-23535-1">https://doi.org/10.1007/978-3-642-23535-1</a> 14
- Mohammed Maree, Saadat M. Alhashmi, Mohammed Belkhatir, H. Hidayat, and Bashar Tahayna.: "Multi-search: A
  Meta-search Engine Based On Multiple Ontologies". In Proceedings of the 6<sup>th</sup> Asia Information Retrieval Symposium
  (AIRS'10), in Cooperation with ACM SIGIR, Taipei, Taiwan, pp. 110-120, (2010).
  <a href="https://doi.org/10.1007/978-3-642-17187-1">https://doi.org/10.1007/978-3-642-17187-1</a> 10
- 19. **Mohammed Maree** and Mohammed Belkhatir.: "A Coupled Statistical/Semantic Framework for Merging Heterogeneous Domain-Specific Ontologies". In Proceedings of the 22<sup>nd</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI'10), Arras, France, pp. 159-166, (**2010**). https://doi.org/10.1109/ICTAI.2010.138

## TEACHING EXPERIENCE / OTHER CERTIFICATES

- > Undergraduate Courses taught at Monash University and at the Arab American University:
  - Systems Analysis and Design 2<sup>nd</sup> Year
  - Algorithms and Data Structures 2<sup>nd</sup> Year
  - o Computer Programming 2 JAVA 2<sup>nd</sup> Year
  - Digital Image Processing 3<sup>rd</sup> Year
  - Digital Video and Audio 4<sup>th</sup> Year
  - Human Computer Interaction 3<sup>rd</sup> Year
  - Interactive Multimedia 4<sup>th</sup> Year
  - Introduction to Multimedia 1st Year
  - Special Topics 1 in Computer Science 4<sup>th</sup> Year
  - o Special Topics 2 in Computer Science Information Retrieval 4th Year
  - Computer Modeling and Animation using Maya 3<sup>rd</sup> Year
  - Computer Aided Design and Drafting using Maya 3<sup>rd</sup> Year
  - Special Topics 2 in Computer Information Technology Digital TV and Cinematography 4<sup>th</sup> Year
  - Multimedia Systems Analysis and Design 3<sup>rd</sup> Year
  - Introduction to Information Technology 1<sup>st</sup> Year
  - Programming Fundamentals 1 (C++1) 1<sup>st</sup> Year
  - Programming Fundamentals 1 (C++1) Lab 1<sup>st</sup> Year
  - Introduction to Computers 1<sup>st</sup> Year
  - Multimedia and Business 4<sup>th</sup> Year
  - Online Advertising Fundamentals 4<sup>th</sup> Year
  - Computer Games Design and Development 3<sup>rd</sup> Year
  - Principles of Object-Oriented Programming Java 3<sup>rd</sup> Year
  - Computer Skills 1<sup>st</sup> Year
  - Fundamentals of Research Methods 2<sup>nd</sup> Year
  - Selected Programming Language Python 5<sup>th</sup> Year
  - Special Topics in Information Technology Python and IR 4<sup>th</sup> Year

- > Master Courses at the Arab American University:
  - Information Retrieval
  - Natural Language Processing
  - Multimedia Forensics And Security
  - Master Thesis 1 & 2
- > **Ph.D. Courses** at the Arab American University:
  - Natural Language Processing
  - o Supervising PhD Students jointly with Supervisors from Forschungszentrum Jülich, Jülich, Germany
- > Ministry of Higher Education, Palestine
  - o Member of the I.T. Course Study and Planning Committee

#### **SUPERVISION AND EXAMINATION ACTIVITIES**

- ➤ Internal Examiner / Master Thesis / Arab American University Palestine
  Thesis Title: "Lexicon-Based Sentiment Analysis for Arabic Slang Text". Date: Sep., 2021.
- ➤ Internal Examiner / Master Thesis / Arab American University Palestine
  Thesis Title: "Loan Risk Prediction Model Using Machine Learning". Date: July, 2021.
- ➤ Internal Examiner / Master Thesis / Arab American University Palestine
  Thesis Title: "Combining Multiple Supervised Machine Learning Algorithms to Detect Network Intrusion
  Attempts". Date: July, 2021.
- ➤ Internal Examiner / Master Thesis / Arab American University Palestine Thesis Title: "Detecting Complex Intrusion Attempts Using Hybrid Machine Learning Techniques". Date: July, 2021.
- > Internal Examiner / Master Thesis / Arab American University Palestine Thesis Title: "Image Classification in the Cultural Heritage". Date: March, 2019.
- ➤ Internal Examiner / Master Thesis / Arab American University Palestine
  Thesis Title: "Prediction of Water Demand in the North of Palestine Using Artificial Neural Networks".

  Date: Nov, 2018.
- > External Examiner / Master Thesis / Al -Quds University Palestine Thesis Title: "Image Retrieval System Based on Arabic Ontology". Date: August, 2014.
- Internal Examiner / Master Thesis / Arab American University Palestine Thesis Title: "Development of Facebook Data Extractor, Analysis and Visualization Tool". Date: July, 2018.
- Reviewer / Zuhair Hijjawi Award for Undergraduate Research / The Arab American University Palestine. Dates: May, 2014, May, 2017, June, 2018.
- > Supervision of Bachelor in Computer Science (B.CS) Students at Monash University-Sunway Campus
- > **Supervision** of Bachelor in Computer Science (B.CS) Students during their internships from Beirzeit University-Ramallah, Palestine
- > **Supervision** of Senior Projects for Multimedia Technology, Computer Science, and Computer Information Technology Students at The Arab American University- Jenin, Palestine
- Supervisor / Master Thesis / The Arab American University Palestine
   Thesis Title: "Semantics-Based Online Recruitment System"
   Duration: Dec, 2015 Feb, 2016 the student was the First Graduate in the Master of Computer Science program at the Arab American University.
- Co-Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Investigating the Possible Adaptation Techniques for Multimedia Learning Resources Inside 3D Virtual Learning Environment"

- Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Query Reformulation in the Context of Medical Information Retrieval" Selected for Funding as part of the PASS (Palestinian Startups Support Program) Funded by KOIKA and implemented by Leaders organization.
- Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "A Hybrid Approach to Conceptual Clustering and Ranking of Applicant Resumes to Their Corresponding Job Postings"
- ➤ Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Towards A Sustainable and Safe Water Sector: Exploiting Internet of Things for Building A Smart Water Management System". Funded by: Middle East Desalination Research Center (MEDRC)-Palestinian Water Authority (PAW) Center of Excellence Scholarship Program. Grant (\$3000).
- Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Towards A Precision-Oriented Multi-Lingual Semantics-Based Cultural Heritage Recommender System". Received Internal Fund from the Arab American University. Amount (JD 6995).
- Supervisor / Master Thesis / The Arab American University, Palestine Jointly with Dr. Mohcine Chraibi, Co-supervisor from Juelich Research Center FZJ Germany Thesis Title: "Pedestrian Dynamics: Experimental Investigation of the Fundamental Diagram Across Cultures"
- Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "A Query-based Symptom-Cognitive-Neural Model for the Estimation of Dopaminergic Medication Dosage in Children with ADHD"
- Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "On Developing a Knowledge-based Context-sensitive Sentence Level Sentiment Analysis System"
- Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "On the Combination of NLP and Extrinsic Semantic Resources for Developing an Arabic-English Sentiment Analyzer"
- Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Bilingual NLP-Based Tool for Clinical Depression Screening and Severity Prediction in the Palestinian Society"
- > Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Depression detection from Social Network Arabic data using NLP"
- Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Analysis of Arabic Sentiment Reviews on Social Media and E-Commerce Using Word2Vec and BERT Models"
- Co-Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Arabic Handwritten Signature Recognition based on Deep Learning Approach"
- Co-Supervisor / Ph.D. Thesis / Thesis Project offered as part of the Joint Research and Education Programme "Palestinian-German Science Bridge PGSB". Forschungszentrum Jülich GmbH, Germany & Palestine Academy for Science and Technology, Palestine Thesis Title: "Towards A Context-oriented Human Motion Prediction Approach"
- Co-Supervisor / Ph.D. Thesis / Thesis Project offered as part of the Joint Research and Education Programme "Palestinian-German Science Bridge PGSB". Forschungszentrum Jülich GmbH, Germany & Palestine Academy for Science and Technology, Palestine
  Thesis Title: "Predicting Pedestrian Future Trajectories at Open environment using Deep Learning algorithms based on GPS dataset"

- > Main-Supervisor / Ph.D. Thesis / Thesis Project offered as part of the Ph.D. in Engineering Information Technology Program.
  - **Thesis Title:** "Building a Large-scale Bi-lingual Medical Lexical Semantic Network for Psychiatric Diseases"
- Co-Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Insider Threat Detection Through User Behavior Analytics and Machine Learning"
- Main-Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Analyzing Customer Reviews On Banks Mobile Applications: A Bilingual Approach Using Natural Language Processing For Topic Detection And Sentiment Analysis"
- Co-Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Arabic Sentiment Analysis and Interpretation Using Deep Learning and Explainable Artificial Intelligence"
- Co-Supervisor / Master Thesis / The Arab American University Palestine Thesis Title: "Machine Learning-Based Assessment of In-Vitro Fertilization Outcomes: A Case Study of Palestine"

## **PROFESSIONAL MEMBERSHIPS**

- Intelligent Pedestrian Dynamics Special Interest Group (IPD-SIG): Computational Modelling and Experimental Investigation of Heterogeneous Crowd Compositions. A research cluster in cooperation between Arab American University, Palestine and Forschungszentrum Jülich, Germany.
   Role: Research cluster representative at Palestinian university and supervision of topics related to Intelligent Pedestrian Dynamics Prediction and Analysis Approaches. http://palast.ps/index.php/en/profile/dr-mohammed-maree
- Member of the Palestine Young Academy (PYA) from 09/2020 to 08/2024 https://sites.google.com/view/pya2020/members?authuser=0
- Centre for Research in Intelligent Systems (CRIS) Monash University Research Group Member <a href="http://www.infotech.monash.edu.au/research/centres/cris/">http://www.infotech.monash.edu.au/research/centres/cris/</a>
- Senior Member of the International Association of Computer Science and Information Technology (IACSIT). http://www.iacsit.org/
- High Degree by Research (HDR) Students Representative Monash University, Sunway Campus http://www.monash.edu.my/
- Member of the international committee of the Advanced Institute of Convergence Information Technology AICIT's conference series. http://www.aicit.org/
- Member of the International Association of Engineers (IAENG). http://www.iaeng.org/
- Editorial Board Member in Science Publishing Group System, International Business and Economics Research Journal <a href="http://www.sciencepublishinggroup.com/journal/news.aspx?journalid=178">http://www.sciencepublishinggroup.com/journal/news.aspx?journalid=178</a>
- Member of the organizing committee for the ACM Palestinian Collegiate Programming Contest (PCPC), The Arab American University, 2014 and 2015.
- Member of the organizing committee for the First Lego League (FLL), The Arab American University, 2016 and 2017.
- Member of the TPC (Technical Program Committee) for the ICCISN'2018 (2018 International Conference on Computer Intelligent Systems & Networking) conference. <a href="https://easychair.org/cfp/ICCISN2018">https://easychair.org/cfp/ICCISN2018</a>

## **PROFESSIONAL RESEARCH ACTIVITIES**

- Reviewer, World Wide Web (WWW) Journal. https://www.springer.com/journal/11280
- Reviewer, Computational Intelligence Journal. <a href="https://onlinelibrary.wiley.com/journal/14678640">https://onlinelibrary.wiley.com/journal/14678640</a>
- Reviewer, Expert Systems Journal. <a href="https://onlinelibrary.wiley.com/journal/14680394">https://onlinelibrary.wiley.com/journal/14680394</a>
- Reviewer, IEEE Access Journal. <a href="https://ieeeaccess.ieee.org/">https://ieeeaccess.ieee.org/</a>
- Reviewer, IEEE Transactions on Industrial Informatics. <a href="https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=9424">https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=9424</a>

- Reviewer, ACM Journal on Computing and Cultural Heritage (JOCCH). <a href="https://jocch.acm.org/">https://jocch.acm.org/</a>
- Reviewer, Journal of Information Science. http://journals.sagepub.com/home/jis
- Reviewer, Knowledge-Based Systems Journal. <a href="http://ees.elsevier.com/knosys/default.asp">http://ees.elsevier.com/knosys/default.asp</a>
- Reviewer, Journal of Community Informatics. <a href="http://ci-journal.net/index.php/ciej">http://ci-journal.net/index.php/ciej</a>
- Reviewer, Journal of Information and Knowledge Management. http://www.worldscientific.com/worldscinet/jikm
- Reviewer, Journal of Community Informatics. http://ci-journal.net/index.php/ciej
- Reviewer, Webology Journal. <a href="http://www.webology.org/">http://www.webology.org/</a>
- Reviewer, Arabian Journal for Science and Engineering. https://www.springer.com/engineering/journal/13369
- Reviewer, IEEE Conference on Open Systems 2011 (ICOS 2011). http://www.cs.ieeemalaysia.org/ICOS2011/home.html
- Reviewer, International Conference on Next Generation Information Technology (ICNIT 2011) http://www.aicit.org/ICNIT/index.html
- Reviewer, 16<sup>th</sup> International Business Information Management Association (IBIMA) http://www.ibima.org/MY2011/index.html
- Reviewer, 2012 IEEE Symposium on Computers & Informatics (ISCI 2012) http://http://www.mypels.org/isci2012
- Reviewer, 18<sup>th</sup> International Business Information Management Association (IBIMA) http://www.ibima.org/TR2012/index.html
- Reviewer,2012 IEEE Conference on Open Systems (IEEE ICOS 2012,2013) http://cs.ieeemalaysia.org/ICOS2012/
- Reviewer, 13th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2017). <a href="http://icnc-fskd.guet.cn/icnc-fskd/index.html">http://icnc-fskd.guet.cn/icnc-fskd/index.html</a>

#### **PROJECTS**

### During my Bachelor Study

- Asset Management System
- Route Planning System
- Bank System (Internship Course) \_ Integrated Technology Group Amman/Jordan (www.itg-group.com)
- E-MOHE Community System (Senior Project) for the Ministry of Higher Education (MOHE) in Palestine

#### During my Ph.D. Study:

- o Gulf-German Training Centre <a href="http://www.ggmtc.com">http://www.ggmtc.com</a>
- o MultiSearch: A Meta-search Engine based on Multiple Ontologies
- QuerySem: A system for Deriving Query Semantics based on Multiple Ontologies and Dynamically Enriched Ontologies

#### During my work at gSoft Technology Solutions Inc.:

- o vAds System <a href="https://mixberrymedia.com/">https://mixberrymedia.com/</a>
- Monica<sup>TM</sup> Executive Virtual Assistant <a href="http://www.mymonica.com/">http://www.mymonica.com/</a>

## During my work at Dimension Consulting Company:

- Jerusalem Water Undertaking (JWU):
  - Build Business Process Maps (BPM) and Procedures Manual for each of the Five departments at JWU
  - Conduct SWOT and STEP analysis
  - Review the Vision and Mission Statements of the JWU
  - Preparing a Strategic Plan for a 3-year horizon
  - Develop Operational Development Plan based on the business of the JWU and under the newly adopted organizational structure
  - Develop Procedure Manuals for all of the Departments at the JWU
- Welfare Association (WA):
  - Work closely with the consultant to develop the reports that pertain to the ECD and CSP programs
  - Evaluate the final reports and produce high quality deliverables
- Municipal Development & Lending Fund (MDLF) Strategic Development and Investment Planning (SDIP) for selected municipalities in Palestine:
  - Support 12 Palestinian municipalities in Developing/Updating their SDIPs
  - Manage the various phases of the project
  - Manage Dimensions team and coordinate with Dimensions' consultants
  - Review the SDIP documentations and provide support/training to the selected municipalities
  - Train the municipal council, employees, and the core planning teams at the different municipalities on using the SDIP Procedures and Tools Manuals
  - Review the reports, Strategic Development Frameworks (SFD), and the complete SDIP document of each municipality
  - Support 3 of the selected municipalities in Monitoring, Evaluating, and Updating their SDIPs

- Faisial Husseini Foundation (FHF):
  - Project Manager for the Baseline, Midterm and Final Study Evaluation provided for the Comprehensive School Upgrading Program
  - Manage Dimensions Team and Coordinate with Dimensions' Consultants
  - Review/update the produced reports
- GIZ (SPS Strengthening of Police Structure Programme):
  - Standard Operating Procedures (SOPs) Expert
  - Manage Dimensions Team and Dimensions' Consultants in the Field
  - Review/update the produced reports

### During my work at The Arab American University:

Interactive Non-linear Stories Project:

The project idea was submitted to both **Leaders** (<a href="www.leader.ps">www.leader.ps</a>) and **Ibdaa** organizations (<a href="www.ibdaa.ps">www.ibdaa.ps</a>) and it is the only project idea that was selected for incubation (among other 14 ideas submitted from the Arab America University) by **Leaders** organization. Also, the idea was one of the top 10 project ideas (among 97 others submitted by 4 different universities) that won in **Ibdaa's** competition in 2015.

StoryLights Project:

The project idea (interactive storyboarding web-based application) was submitted to **Ibdaa** organization (<u>www.ibdaa.ps</u>) in the second round of competition in 2016, and it was ranked in the 2<sup>nd</sup> place in the competition.

o Semantics-based Online Recruitment System:

In this project, we propose an automatic semantics-based online recruitment system that employs knowledge represented by multiple existing semantic resources to match between candidate resumes and job posts. In addition, we utilize statistical-based semantic relatedness measures to compensate for missing background knowledge in the exploited semantic resources.

- Multiple Ontology-based Ad Serving From Content to Context Advertising:
  - In this research work, we propose a novel multi-level context-based ads serving approach through which ads will be served at generic publisher websites based on their contextual relevance. In the proposed system, multiple semantic resources will be exploited in order to analyze and segment Web pages into a set of contextually-relevant parts. The outcomes of this process will be employed by a matching algorithm that matches each ad in the Ads repository with one or more relevant contexts.
- Investigating the possible adaptation techniques for Multimedia Learning Resources inside 3D virtual Learning Environment:

This research aims to investigate the different adaptation techniques that can be applied to the audio and video learning resources which are considered as one of the important components of the 3D Virtual Learning Environments. As a result, such adaptation techniques can be used to improve the learning outcomes from a 3D Virtual Learning Environment.

UniGov - Erasmus+ - Capacity Building Programme:

This project is in the Field of Higher Education. It was accepted in 2016. The project is leaded by An-Najah National University in collaboration with Islamic University in Gaza, The Arab American University, and Palestine Polytechnic University. The title of the project is: UniGov (Improving Governance Practices at Palestinian Higher Education Institutions).

## **TECHNICAL SKILLS**

- Operating Systems: Linux and Windows
- Programming Languages: R, Python, C++, Java, JSP, ASP/VB.NET, C#, VB, Java Script, OpenGL, VRML, PHP.
- **Tools & Apps**: NetBeans, Visual Studio.Net, Protégé, Premiere, Maya, Unity, RapidMiner, LightSide, Weka, Apache lucene, PyCharm, RStudio, Anaconda, Scikit-learn, PyTorch, NLTK, CoreNLP, NetworkX
- RDBMs: SQL Server, Oracle, MySQL, SQLite
- **Web:** (Web Design using Dreamweaver, MS Front page, CSS, and HTML)
- Mobile Development: (Android)

## **PERSONAL SKILLS**

- Ability to manage and lead a team
- Ability to work well under pressure
- Good interpersonal and communication skills
- Coordination and administrative skills
- Excellent research skills

- Excellent project management skills
- Excellent training and facilitation skills

## LANGUAGES

- Arabic native language
- English Speaking/ Excellent, Reading/ Excellent, Writing/Excellent

## REFEREES

• Associate Professor. Saadat M. Alhashmi, University of Sharjah, United Arab Emirates.

Phone: (+971) 563 435 862 Email: <a href="mailto:salhashmi@sharjah.ac.ae">salhashmi@sharjah.ac.ae</a>

Associate Professor. Mohammed Belkhatir, Lyon University, France.

Email: mohammed.belkhatir@iut.univ-lyon1.fr

• Prof. Chris Messom, Monash University, Sunway Campus, Kuala Lumpur, Malaysia.

Phone: (+603) 5514 6155

Email: c.h.messom@monash.edu