

## Fatemah A. Husain

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### OVERVIEW

Driven by eagerness to learn and to improve my knowledge, I am passionate about doing research by combining my multidisciplinary experiences to discover innovative and creative ways to solve social problems and pass my knowledge to others.

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### EDUCATION

Doctor of Philosophy, Information Technology with Concentration in Information System (2015 - 2021)

- George Mason University, Volgenau School of Engineering
- Supervisor: Dr. Ozlem Uzuner
- GPA 3.86/4.00

Master of Science, Computer Science (2013 - 2015)

- University of Minnesota, College of Science and Engineering
- GPA 3.542/4.00

Master of Science, Information Technology (2006 - 2009)

- Kuwait University, College of Graduate Studies
- GPA 3.46/4.00

Bachelor of Managements (Honors), Management Information System (2002 - 2005)

- Kuwait University, College of Business Administration
  - GPA 3.93/4.00
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### RESEARCH EXPERIENCE

**Husain, F.**, Al-Ostad, H., & Omar, H. (2022). A Weak Supervised Transfer Learning Approach for Sentiment Analysis to the Kuwaiti Dialect. The 7th Arabic Natural Language Processing Workshop (WANLP2022). December 8, 2022. Abu Dhabi.

**Husain, F. & Uzuner, O. (2022).** Transfer Learning Across Arabic Dialects for Offensive Language Detection. The International Conference on Asian Language Processing (IALP). October 26-27, Singapore & Shenzhen.

**Husain, F. & Uzuner, O. (2022).** Investigating the Effects of Preprocessing Arabic Text for Offensive Language Detection and Hate Speech Detection Systems. The ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP). <http://dx.doi.org/10.1145/3501398>

**Husain, F. (2021).** Arabic Offensive Language Detection in Social Media. George Mason University, ProQuest Dissertations Publishing. 28494043.

**Husain, F. & Uzuner, O. (2021).** SalamREPO: an Arabic Offensive Language Knowledge Repository. Future Technologies and Innovations (FTI) Proceedings: 4th International Conference on Computer Applications & Information Security (ICCAIS'2021). March 19-21, Tunisia. <https://fti-tn.net/iccais-2021-list-of-papers>

**Husain, F. & Uzuner, O. (2021).** Fine-Tuning Approach for Arabic Offensive Language Detection System: BERT-Based Model. Future Technologies and Innovations (FTI) Proceedings: 4th International Conference on Computer Applications & Information Security (ICCAIS'2021). March 19-21, Tunisia. <https://fti-tn.net/iccais-2021-list-of-papers>

**Husain, F. & Uzuner, O. (2021).** Leveraging Offensive Language for Sarcasm and Sentiment Detection in Arabic". Proceedings of the Sixth Arabic Natural Language Processing Workshop, Kiev, Ukraine, April 2021, 364--369. Association for Computational Linguistics.

**Husain, F. & Uzuner, O. (2021).** Exploratory Arabic Offensive Language Dataset Analysis. arXiv: [arXiv:2101.11434](https://arxiv.org/abs/2101.11434)

**Husain, F. & Uzuner, O. (2021).** A Survey of Offensive Language Detection for The Arabic Language. The ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP). <https://doi.org/10.1145/3421504>

**Husain, F., Lee, J., Henry, S. & Uzuner, O. (2020).** SalamNET at SemEval-2020 Task 12: Deep Learning Approach. Proceedings of the International Workshop on Semantic Evaluation (SemEval).

**Husain, F. (2020).** Arabic Offensive Language Detection Using Machine Learning and Ensemble Machine Learning Approaches. [arXiv:2005.08946](https://arxiv.org/abs/2005.08946)

**Husain, F. (2020).** OSACT4 Shared Task On Offensive Language Detection: Intensive Preprocessing Based Approach. *Proceedings of the 4th Workshop on Open-Source Arabic Corpora and Processing Tools*, pages 53–60 with a Shared Task on Offensive Language Detection. Language Resources and Evaluation Conference (LREC 2020), Marseille, 11–16 May 2020. [arXiv:2005.07297](https://arxiv.org/abs/2005.07297) and <https://www.aclweb.org/anthology/2020.osact-1.8.pdf>

**Husain, F.** (2020). Investigating Current State-of-The-Art Applications of Supportive Technologies for Individuals with ADHD. [arXiv:2005.09993](https://arxiv.org/abs/2005.09993)

**Husain, F. & Motti, V.** (2020). Social Media Usage in Kuwait: A Comparison of Perspectives Between Healthcare Practitioners and Patients. [arXiv:2005.07898](https://arxiv.org/abs/2005.07898)

Abbas, H. & **Husain, F.** (2006). Education and Technology in Kuwait Democratic Practice. The International Academy of Business and Public Administration Disciplines. [arXiv:2005.07891](https://arxiv.org/abs/2005.07891)

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## WORKING EXPERIENCE

Assistant Professor (2021 - Current)  
- Kuwait University, College of Life Sciences

Scientific Research Assistant (2013 - 2021)  
- Kuwait University, College of Life Sciences

Teacher Assistant (2012 - 2013)  
- Kuwait University, College of Life Sciences

College Instructor – Part-time (2011 - 2013)  
- The Public Authority for Applied Education and Training, College of Business Studies

System Analyst (2011 – 2012)  
- General Secretary for the Supreme Council for Planning and Development

Primary School Computer Teacher (August 2005 – December 2005)  
- Ministry of Education

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## SKILLS

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| Human-Computer Interaction and User Experience | User studies, user-centered design, design principles and guidelines, usability, designing technology enhanced learning, affordance analysis, learning design analysis, game culture analysis, content analysis, surveys, affinity diagram, heuristic evaluation, persona, context analysis, cognitive load theory, task analysis, prototyping, qualitative and quantitative research methods. |
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| Big Data Analytics | Multimedia applications, semantic metadata, clustering algorithms, text mining, data visualization, social network analysis, semantic web standards, ontologies, data model, RDF. |
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| Natural Language Processing | Language model, rule-based approach, data-driven approach, n-gram, text classification, formal language, part of speech tagging, word sense disambiguation, information extraction, information retrieval, question answering, and sentiment analysis. |
| Assistive Technologies      | Serious games, mobile assistive applications, accessibility, inclusive design, designing for individuals with autism and ADHD.   |
| Software Engineering        | Data-driven software testing, criteria-based test design, input domain model, agile method, use case model, context model, finite state machine, sequence model, component based model, UML, SysML, design patterns.                                   |
| Programming Management      | Python, XML, XQuery, OWL, SPARKQL.<br>Management information system, system analysis, database management, accounting management, economy, competitor analysis, strategic planning, risk management, project management                                |

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## **AWARDS AND PROFESSIONAL EXPERIENCE**

- Reviewer of the Journal of Machine Learning, 2022.
- Reviewer of the Journal of Information Science Theory and Practice (JISTaP), 2022.
- Workshop “Text Classification for the Arabic Language”, Google Development Group, Kuwait chapter, September 21<sup>st</sup>, 2022.
- Tech Talk “Processing Arabic Text for Social Good: Challenges and Opportunities”, at iWAN Research Group, Kind Saud University, Riyadh, Saudi Arabia, July 5<sup>th</sup>, 2022.
- Participant in Women in Tech Founders Program, US department of state and Women Tech Makers, June - August 2022.
- Judge of the 1<sup>st</sup> Kuwait competition for life science for high school students, 2022.
- Program Committee Member of the 7<sup>th</sup> Arabic Natural Language Processing Workshop (WANLP), 2022.
- Reviewer of the 7<sup>th</sup> Arabic Natural Language Processing Workshop (WANLP), 2022.
- Scientific poster presentation, “Effects of the COVID-19 Pandemic on the Use of Social Media for Students from Kuwait University”. The Scientific Poster Day Event, Kuwait University, March 7-8, 2022.

- Scientific poster presentation, “Bridging the Gap between Healthcare Providers and Patients through Social Media”. The Scientific Poster Day Event, Kuwait University, March 7-8, 2022.
- George Mason University Dissertation Completion Grant (Spring 2021)
- Reviewer of the 12th International Workshop on Health Text Mining and Information Analysis, 2021.
- Research poster presentation, “Leveraging Offensive Language for Sarcasm and Sentiment Detection in Arabic”. The Sixth Arabic Natural Language Processing Workshop (WANLP 2021), Kiev, Ukraine, April 19-20, 2021
- Google's Computer Science Research Mentorship Program (CSRMP) (Spring 2021)
  - o Mentor: Dr. Alyssa Lee
- Ranked 12<sup>th</sup> in Sarcasm Detection Shared Task in Arabic
  - o The Sixth Arabic Natural Language Processing Workshop (WANLP 2021)
- Ranked 12<sup>th</sup> in Sentiment Analysis Shared Task in Arabic
  - o The Sixth Arabic Natural Language Processing Workshop (WANLP 2021)
- Shared Task of Multilingual Offensive Language Identification in Social Media (OffensEval) at the International Workshop on Semantic Evaluation 2020 (SemEval 2020)
  - o Arabic: ranked 34<sup>th</sup>
  - o Greek: ranked 35<sup>th</sup>
  - o Turkish: ranked 27<sup>th</sup>
- Ranked 3<sup>rd</sup> in Offensive Language Detection Shared Task for Arabic
  - o The Fourth workshops on Open-Source Arabic Corpora and Corpora Processing Tools (OSACT4) in Language Resources and Evaluation Conference 2020 (LREC 2020).
- Ranked 1<sup>st</sup> in Hate Speech Detection Shared Task for Arabic
  - o The Fourth workshops on Open-Source Arabic Corpora and Corpora Processing Tools (OSACT4) in Language Resources and Evaluation Conference 2020 (LREC 2020).
- Treasurer for the ACM SIGCHI Kuwait City Chapter (December 2018 – December 2019)
- Kuwait University Full Scholarship Award (Fall 2013 – Spring 2021)
- Kuwait University Best Students Awards (2004/2005)

## TEACHING EXPERIENCE

Fall 2022/2023

- Technical Writing - 20 Students
  - o Kuwait University, College of Life Sciences

Fall 2022/2023

- Career Perspectives – 46 Students
  - o Kuwait University, College of Life Sciences

September 21, 2022 – 57 Students

- Text Classification for the Arabic Language
  - o Google Development Group – Kuwait
  - o <https://github.com/Fatemah-Husain/Text-Classification-Basics-Workshop>

Summer 2021/2022

- Career Perspectives – 38 Students
  - o Kuwait University, College of Life Sciences

Spring 2021/2022

- Introduction to Information System – 14 Students
  - o Kuwait University, College of Life Sciences, Department of Information Science
- Information System Development – 4 Students
  - o Kuwait University, College of Life Sciences, Department of Information Science

Fall 2021/2022

- Introduction to Information System – 17 Students
  - o Kuwait University, College of Life Sciences, Department of Information Science
- Career Perspectives – 36 Students
  - o Kuwait University, College of Life Sciences

Spring 2012/2013

- Management Information System - 30 Students
  - o The Public Authority for Applied Education and Training, College of Business Studies
- Management Information System (Teacher Assistant) - 16 Students
  - o Kuwait University, College of Life Sciences, Department of Information Science
- Fundamentals of Personal Computer (Teacher Assistant) – 9 Students
  - o Kuwait University, College of Life Sciences, Department of Information Science

Fall 2012/2013

- Management Information System - 27 Students
  - o The Public Authority for Applied Education and Training, College of Business Studies

- Information System Application in Nutrition (Teacher Assistant) - 6 Students
  - o Kuwait University, College of Life Sciences, Department of Information Science
- Web Programming (Teacher Assistant) – 20 Students
  - o Kuwait University, College of Life Sciences, Department of Information Science
- Internship (Teacher Assistant) – 2 Students
  - o Kuwait University, College of Life Sciences, Department of Information Science

Spring 2011/2012

- Office Equipment - 40 Students
  - o The Public Authority for Applied Education and Training, College of Business Studies

Fall 2011/2012

- Office Equipment - 35 Students
  - o The Public Authority for Applied Education and Training, College of Business Studies

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**SELECTED TRAINING PROGRAMS WITH CERTIFICATE**

27 April 2022 Power of Social Media

- Kuwait University –Al-Khawarizmi Center Kuwait

26 Jan. 2022 Research Ethics Training Course

- Kuwait University

15 Oct. – 9 Dec. 2019 Machine Learning

- Stanford University (Coursera)

13 – 14 Sep. 2017 Human Research - Group 1 Social & Behavioral Research

- Collaborative Institutional Training Initiative (CITI Program)

9 – 18 Aug. 2017 Autism Spectrum Disorder

- University of California, Davis (Coursera)

25 Oct. –22 Nov. 2014 Preparing for GRE

- University of Minnesota (USA)

2-9 July 2012 Project for Senior Programmers

- Infocenter Training Institute (Kuwait)

25 June-1 July 2012 Microsoft ASP.Net AJAX Workshop

- Infocenter Training Institute (Kuwait)

- 12-24 June 2010 Developing Data Access Solutions with Microsoft Visual Studio 2010  
 - Infocenter Training Institute (Kuwait)
- 31 May-11 June 2012 Introduction to Web Development with Microsoft Studio 2010  
 - Infocenter Training Institute (Kuwait)
- 21-30 May 2012 Developing Windows applications with Microsoft Visual Studio 2010  
 - Infocenter Training Institute (Kuwait)
- 9-20 May 2012 Programming in Visual Basic with Microsoft Visual Studio 2010  
 - Infocenter Training Institute (Kuwait)
- 6-8 May 2012 English for Computer  
 - Infocenter Training Institute (Kuwait)
- 4-8 Mars 2012 Analysis and Predictions of Demographic and Economic  
 - Arab Planning Institute (Kuwait)
- Mars-April 2012 GRE  
 - AMIDEAST (Kuwait)
- 12-16 February 2012 Planning Expertise in the GCC Countries  
 - Arab Planning Institute (Kuwait)
- 5-9 February 2012 Planning Policies for Economic and Social Growth Kuwait  
 - Arab Planning Institute (Kuwait)
- 22-26 January 2012 Test and Address the Quality of Statistical Data  
 - Arab Planning Institute (Kuwait)
- May-June 2010 GMAT  
 - Gulf University for Science and Technology (Kuwait)
- August –September 2009 TOEFL  
 - Expression Institute for Private Training (Kuwait)
- 22 -26 March 2009 Advanced SPSS  
 - Kuwait University
- April 2006 ICDL  
 - Kuwait University –Al-Khawarizmi Center Kuwait
- 18 March –26 April 2006 Graphic Package (Adobe Photoshop –Flash MX-MS Publisher)  
 - Pitman Training Center (Kuwait)
- 24-28 December 2005 Life Adaptation



- Al-Rujab Media International –Public Relation Specialist (Kuwait)

September 2005 -October 2005 GMAT

- Kuwait University

December 2004 Stock Market

- Kuwait University

Oct 2004 Introduction to SPSS

- Kuwait University

24-28 April 2004 Political Protocol & Etiquette

- Al-Rujab Media International –Public Relation Specialist (Kuwait)
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## **MEMBERSHIPS**

- Association for Computing Machinery (ACM) (2019 - Current)
  - Association for Computational Linguistics (ACL) (2020 - Current)
  - Special Interest Group of the Association for Computational Linguistics for Arabic Natural Language Processing (SIGARAB) (2022 - Current)
  - Google Development Group (GDG) Kuwait (2022 - Current)
  - Women Techmakers – Kuwait (2022 - Current)
  - ArabWIC – Kuwait (2022 - Current)
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## **LANGUAGES**

- Arabic: native language
- English: speak fluently and read/write with high proficiency