

# Dr. Ahoud Alhazmi

Assistant Professor | Umm Al-Qura University



## About me

Dr. Ahoud Alhazmi (Member, IEEE) earned a Doctor of Philosophy (PhD) in computer science from Macquarie University in 2022. She is an assistant professor in the College of Computers at Al-Leith, Umm Al-Qura University. Dr. Ahoud Alhazmi has written and co-written numerous academic publications. She has also worked in various capacities on numerous conference committees and international journals, including as a member of the Program Committee (PC) and a reviewer.

## Research Interest

My areas of interest include but are not limited to, Deep learning, Machine Learning, Data Mining, Natural Language Processing, Adversarial Attacks, Explaining Black-Box Models, Artificial intelligence in Education, improving Metacognitive Feedback to Novice Programmers and Human-Computer Interaction.

## Contact

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📍 Umm Al-Qura University, Saudi Arabia

📖 Semantic scholar: Ahoud Alhazmi

📖 Research Gate: Ahoud Alhazmi

📖 GoogleScholar: Ahoud Alhazmi

📖 ORCID: 0000-0002-3471-8753

📖 dblp: Ahoud Alhazmi

## Languages

🇸🇦 Arabic - Native Language

🇬🇧 English - Professional Knowledge

## EDUCATION

2018-2023



**Ph.D of Computer Science**

📍 Sydney, Australia

**Macquarie University**

*Faculty of Science and Engineering*

Topic: Defending Adversarial Attacks on Deep Learning Models in Natural Language Processing

2016-2018



**Master Computer Science**

📍 Adelaide, Australia

**The University of Adelaide**

*Faculty of Sciences, Engineering and Technology*

Topic: Providing Meta-cognitive Support Using Learning by Teaching Paradigm.

**Degree: High Distinction (HD)**

2006-2011



**Bachelor Computer Science**

📍 Jeddah, Saudi Arabia

**King Abdul-Aziz University**

*Faculty of Computing and Information Technology*

Topic: "Via": Electronic Organizer for Family.

**Degree: Excellent with Honor**

## WORK EXPERIENCE

2022-

**Present**

**Assistant Professor**

📍 Al-Leith, Saudi Arabia

*Computing Department, Engineering and Computing College at Al-Lith, Umm Al-Qura University*

2011-2022

**Teaching Assistant**

📍 Al-Leith, Saudi Arabia

*Computer Science Department, Computer College at Al-Lith, Umm Al-Qura University*

2012-2014

**Deputy Head**

📍 Al-Leith, Saudi Arabia

*Computer College at Al-Lith, Umm Al-Qura University*

Apr-Aug  
2012

**Head**

📍 Al-Leith, Saudi Arabia

*Computer Science Department, Al-Leith University College for Female Students, Umm Al-Qura University.*

Jul-Oct 2011

**Teaching Assistant**

📍 Medina, Saudi Arabia

*Computer Science Department, College of Computer Science and Engineering, Taibah University.*

Mar-Jun  
2011

**Teaching Assistant**

📍 Jeddah, Saudi Arabia

*Computer Science Department, College of Computing and Information Technology, King Abdul-Aziz University.*

Jul-Oct 2009

**Trainee**

📍 Dhahran, Saudi Arabia

*Hydrocarbon Department, Administration Information Technology, Saudi Aramco Company.*

## ACADEMIC PEER REVIEWS

I did academic peer review and Program Committee (PC) for the following conferences and journals:

- Program Committee (PC) Member, the 22nd International Conference on Service-Oriented Computing (ICSOC 2024), Tunis, Tunisia, December 3-6, 2024.
- Program Committee (PC) Member, the 20th International Conference on Advanced Data Mining and Applications (ADMA 2024), Sydney, Australia, December 3-5, 2024.
- Reviewer, Journal of Applied Intelligence (APIN), 2024.
- Reviewer, Journal of IEEE Transactions on Intelligent Vehicles, 2024.

Research Interests

Major research interests include but not limited to:

Artificial Intelligence

Data Science

Big Data

Data Mining

Graph Theory

Social Networks

Internet of Things

Machine Learning

Deep learning

Information Retrieval

Teaching Course

- Computational Thinking and Problem Solving
- Computer Programming 1
- Computer Programming 2
- Discrete Mathematics
- Object-Oriented Programming
- Data Structures
- Programming Languages
- Introduction to Information Science
- Structured Programming
- Analysis and logical design
- Analysis and design of algorithms
- Numerical calculation
- Introduction to Computer Science
- Advanced operating systems
- Simulation and Modeling
- Advance programming

Advance Topics

Adversarial attack

Deep Learning (DL)

Explaining Black-Box DNN Models)

Data Mining

Data Science

Traditional Machine Learning (ML)

Graph Neural Network (GNN)

Natural Language Processing (NLP)

Bayesian Non-parametric

Evolutionary Algorithms

Genetic Programming

Metacognitive Feedback o

Programming Languages

Python

Java

C++

C

C#

Visual Basics

SQL

ACADEMIC PEER REVIEWS cont.

- Technical Program Committee (TPC) Member, the International Joint Conference on Neural Networks (IJCNN 2024), Yokohama, Japan, June 30-July 5, 2024
- Reviewer, Journal of Computing, 2023.
- Technical Program Committee Member, the International Joint Conference on Neural Networks (IJCNN 2023), Gold Coast, Australia, June 18-23, 2023.
- Reviewer, Journal of IEEE Transactions on Intelligent Vehicles, 2023.
- Reviewer, Journal of Applied Intelligence (APIN), 2023.
- Reviewer, Journal of Computing, 2022.
- Reviewer, Journal of IEEE Transactions on Computational Social Systems, 2022.
- Program Committee (PC) Member, the 33rd Australian Conference on Information Systems (ACIS 2022), Melbourne, Australia, December 4 -7, 2022.
- Program Committee (PC) Member, the 18th International Conference on Advanced Data Mining and Applications (ADMA 2022), Melbourne, Australia, November 28-30, 2022.
- Program Committee (PC) Member, the 13th International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN 2022), Leuven, Belgium, October 26-28, 2022.
- Program Committee (PC) Member, the 32nd Australian Conference on Information Systems (ACIS 2021), Sydney, Australia, December 08-10, 2021.
- Reviewer, the 33rd International Conference on Database and Expert Systems Applications (DEXA 2022), Vienna Austria, August 22-24, 2022.
- Reviewer, the 28th International Conference on Neural Information Processing (ICONIP 2021) , Sanur, Bali, Indonesia, December 8- 12, 2021.
- Reviewer, the 31st International Conference on Database and Expert Systems Applications (DEXA 2020), Bratislava, Slovakia, September 14-17, 2020.

PUBLICATIONS

Journal Article	
	<b>Adversarial Attacks on Deep-learning Models in Natural Language Processing: A Survey</b> , Wei Emma Zhang, Quan Z. Sheng, <b>Ahoud Alhazmi</b> , Chenliang Li., <i>ACM Transactions on Intelligent Systems and Technology (TIST)</i> , 2020 pp.1-41. <b>(EiC's Pick as Five Outstanding TIST Articles in Jan 2022, Highly Cited in Semantic Scholar)</b> , <a href="https://doi.org/10.1007/s00521-020-05667-z">doi</a> 10.1007/s00521-020-05667-z
	<b>The Impact of Guided Metacognitive Feedback on Novice Programmers Using Learning by Teaching Environment</b> , <b>Ahoud Alhazmi</b> , Rafika Maaroufi and Abdulwahab Aljubairy, <i>Journal of King Abdulaziz University: Computing and Information Technology Sciences</i> 8(2), 2019, <a href="https://doi.org/10.1007/978-3-030-91560-5_35">doi</a>
	<b>Memory Management via Ownership Concept Rust and Swift: Experimental Study</b> , Elaf Alhazmi, Abdulwahab Aljubairy, <b>Ahoud Alhazmi</b> , <i>International Journal of Computer Applications</i> 183(22), 2021, <a href="https://doi.org/10.1007/978-3-030-91560-5_35">doi</a>
Conference Proceedings	<b>Towards a Deep Learning-driven Service Discovery Framework for the Social Internet of Things: A Context-aware Approach</b> , Abdulwahab Aljubairy, <b>Ahoud Alhazmi</b> , Wei Emma Zhang, Quan Z. Sheng and Dai Hoang Tran, <i>In Proceedings of the 22nd International Conference on Web Information Systems Engineering (WISE), Melbourne, Australia, October 26-29. IEEE.</i> 2021, <a href="https://doi.org/10.1007/978-3-030-91560-5_35">doi</a> 10.1007/978-3-030-91560-5_35

Libraries

TensorFlow


Keras

PyTorch

Scikit-Learn

Numpy

Pandas



Soft Skills and Strengths

Creativity

Curiosity

Flexibility

Self Confidence

Ability to Plan and Organize

Leadership

Autonomy

Adaptability

Eye for Details

Problem Solving

Team Working

Love Learning New Things

Leadership

Good Communication

Managing Information

Diplomacy

Good Listener


Patience


Awards


- **Academic Excellence Award**, Saudi Arabian Cultural Mission in Australia, Ministry of Education in 2019, 2020 and 2012.
- **Golden Key**, International Honour Society in 2017.
- **Academic Excellence Award**, Saudi Arabian Cultural Mission in Australia, Ministry of Education in 2016.
- **Certificate of Academic Excellence**, King Abdul-Aziz University in 2006, 2007 and 2008.


My CV





 **PUBLICATIONS cont.**

**A Fast and Accurate Approach for Inferencing Social Relationships Among IoT Objects**, Abdulwahab Aljubairy, **Ahoud Alhazmi**, Wei Emma Zhang, Quan Z. Sheng and Dai Hoang Tran, *In Proceedings of the International Conference on Advanced Data Mining and Applications (ADMA), Sydney, Australia, Feb 2-4. Springer. 2021,*  10.1007/978-3-030-95408-6\_7

**A Unified Framework for Improving Misclassifications in Modern Deep Neural Networks for Sentiment Analysis**, **Ahoud Alhazmi**, Abdulwahab Aljubairy, Wei Emma Zhang, Quan Z. Sheng, *In Proceedings of the International Joint Conference on Neural Networks (IJCNN), Virtual Conference, July 18-22. pp. 1–7. IEEE. 2021.,*  10.1109/IJCNN52387.2021.9534168


**SloTPredict: A Framework for Predicting Relationships in the Social Internet of Things**, Abdulwahab Aljubairy, Wei Emma Zhang, Quan Z. Sheng, **Ahoud Alhazmi**, *In Proceedings of the International Conference on Advanced Information Systems Engineering (CAiSE), Grenoble, France, June 8-12. pp. 101–116. Springer. 2020.,*  10.1007/978-3-030-49435-3\_7

**Are Modern Deep Learning Models for Sentiment Analysis Brittle? An Examination on Part-of-Speech**, **Ahoud Alhazmi**, Wei Emma Zhang, Quan Z. Sheng, Abdulwahab Aljubairy, *In Proceedings of the International Joint Conference on Neural Networks (IJCNN), Glasgow, United Kingdom, July 19-24. pp. 1–7. IEEE. 2020.,*  10.1109/IJCNN48605.2020.920766

**Analyzing the Sensitivity of Deep Neural Networks for Sentiment Analysis: A Scoring Approach**, **Ahoud Alhazmi**, Wei Emma Zhang, Quan Z. Sheng, Abdulwahab Aljubairy, *In Proceedings of the International Joint Conference on Neural Networks (IJCNN), Glasgow, United Kingdom, July 19-24. pp. 1–7. IEEE. 2020.,*  10.1109/IJCNN48605.2020.9207000

**The 10 Research Topics in the Internet of Things**, Wei Emma Zhang, Quan Z. Sheng , Adnan Mahmood, Dai Hoang Tran, Munazza Zaib, Salma Abdalla Hamad, Abdulwahab Aljubairy, **Ahoud Alhazmi**, Subhash Sagar, Congbo Ma, *In Proceedings of the 6th International Conference on Collaboration and Internet Computing (CIC), Atlanta, GA, USA, December 1-3. (pp. 34-43). IEEE.,*  10.1109/CIC50333.2020.00015

**Distractor Generation for Multiple-Choice Questions: A Survey of Methods, Datasets, and Evaluation**, Elaf Alhazmi, Quan Z. Sheng , Wei Emma Zhang, Munazza Zaib, **Ahoud Alhazmi**, *arXiv preprint, 2024.,*  arXiv:2402.01512

 **ACADEMIC ACTIVITIES**

- Poster Presentations: Ingenuity, The University of Adelaide, Adelaide, Australia, in 2017.
- Poster Presentations: Demo Day 6, King Abdul-Aziz University, Jeddah, Saudi Arabia, in 2011.
- Conducting training courses: Preparing presentations inside classrooms, 2013, Al-Leith University College for Female Students, Umm Al-Qura University.
- Conducting training courses: Research Methods and Evaluation of Websites, 2012, Al-Leith University College for Female Students, Umm Al-Qura University.