




Mohammad Abdallah Al Sharaiah


Computer Science- Artificial Intelligence

Personal Information

Date / Place Of Birth:
01-5-1981 Amman
/Jordan

Nationality: Jordanian

 Amman, Jordan

 +962 776973373



MOHDSHARAIAH@GMAIL.COM

Education

March 2015 to Oct 2018

PhD Computer Science Artificial Intelligence.
Lincoln University, Christchurch, New Zealand.
(319 QS Ranking).

PhD Thesis Title:

Qualitative and Semi Quantitative Systems Approaches to Complex Systems Modelling – Intuitive and Flexible Models of Biological Systems

Thesis Oral date: Oct 2018.

Sept 2007 to Jun 2010

M.Sc. in Computer Science.
Al Balqa Applied University, Salt, Jordan (3.44/4)

Thesis Title:

Mobile Agent System- Proposed Model

Sept 1999 to Jun 2003

B.Sc. in Computer Science And Information Systems.
Philadelphia university, Amman, Jordan, (72%).

- ☒ **On request, a secure access to my degree documents can be provided by the official platform of Australian and New Zealand Higher Education Providers**
(<https://www.myequals.edu.au/>).

Work Experiences

Oct 2024 to Present

Department of Information Technology.
The University of Jordan. Amman- Jordan.

Sept 2023 to Sept 2024

Department Head of Computer Science Department.
Al-Ahliyya Amman University (AAU), Jordan

2021 to Sept 2023

Department Head of Data Science and Artificial Intelligence.
Al-Ahliyya Amman University (AAU), Jordan.

2021 to Sept 2023

Assistant Dean for Laboratory Affairs.
Al-Ahliyya Amman University (AAU), Jordan.

2021 to Present

Assistant Professor- Data Science and Artificial Intelligence.
Al-Ahliyya Amman University (AAU), Jordan

2021 to Sept 2023

Member of the University Advisory Council.
Al-Ahliyya Amman University (AAU), Jordan

Work Experiences

May 2018 to 2021	Part Time Lecturer , Computer Science Department, The University of Jordan, Amman, Jordan.
May 2018 to 2021	Part Time Lecturer , Computer Information Systems Department, The University of Jordan, Amman, Jordan.
Feb 2013 to Sept 2013	Part Time Lecturer , Postgrad Diploma In Information And Communication Technologies In Education (ICTE), The University of Jordan, Amman, Jordan.
Feb 2011 to Sept 2012	Part Time Lecturer – Postgrad Diploma In Utilizing E-learning In Education (E-Education) TEMPUS Project, The University Of Jordan, Amman, Jordan.
Sept 2006 to Sept 2010,	Part Time Lecturer – Computer Information Systems Department, The University of Jordan, Amman, Jordan.
Sept 2006 to Sept 2011	Developer – Development Affaires Office, King Abdullah II School For Information Technology, The University Of Jordan, Amman, Jordan. E - Learning System Administrator And Automated Exam System Administrator
April 2005- May 2006	Assistant Researcher , The University of Jordan, Amman, Jordan.

Projects

Founder of the Data Science Lab at Information Technology Faculty.

Al-Ahliyya Amman University (AAU), Jordan

Founder of the Artificial Intelligence Lab at Information Technology Faculty.

Al-Ahliyya Amman University (AAU), Jordan.

Head of scientific team to establish and develop the department of data science and artificial intelligence.

Information Technology Faculty, Al-Ahliyya Amman University (AAU), Jordan.

Development study Plan, advisory plan, program files, courses and syllabuses.

Postgraduate and Undergraduate Supervision:

❖ Postgraduate thesis supervision:

1. Thesis title "**Toward Enhancing Malware Detection Using Particle Swarm Optimization in Honeypot**".
2. Thesis title "**Virtual Machine Learning Firewall for Mitigating DDOS Attack in Cloud Computing**".

❖ Undergraduate - graduation project supervision :

- **Face Recognition Attended System.**
- **Pickup passenger based on GPS.**
- **They key finder- AI gaming.**
- **The wallet- online reservation system.**

Conferences and Workshops

Feb-April 2023	Humanoid and programmable robot - Pepper Robot, Microcontrollers (MCU) and Arduino boards. Al-Ahliyya Amman University (AAU), Jordan
July 2016	Research Methods Workshop Lincoln University– New Zealand
April 2016	Technical Writing Workshop Lincoln University – New Zealand
20 Jan 2011 to 29 Jan 2011	E-Learning and training workshop, Free Berlin University (Germany -Berlin)
2008-2013	Several Internal Workshop - The University Of Jordan

Teaching Experience, Courses

- Database Course.
- Pattern Recognition Course
- Introduction to Data science Course
- System analysis and Development Course.
- Basics of computing course
- Computer Skills for Humanities.
- Business Intelligence Course
- Machine Learning and Deep Learning Course.
- Data Mining Course
- Introduction to Artificial Intelligence System Course.
- Computer Language programming, (Programming using C++ language).
- Applying Design and Graphical Design In Education Level- Postgraduate Students In ICTE Diploma.
- Teaching And Training The Child Rights Diploma Stuff (Instructors & Students) –For The University Of Jordan , The E-Learning Concept Blackboard 9.1 Features , How To Move From Manual Teaching Method To E-Learning Methodology By Using BB Inside Class Room

Research Interest and Background

Knowledge Representation by graph theory, Cyber Security Intelligence , Modeling complex systems, Machine Learning and Deep Learning, Data mining, Big data., Bioinformatics, and Modeling complex systems

Experience with applying Machine learning methodologies , such as SVM , Deep Neural Networks, LSTM , CNN , RNN, GRU models for Recognition /prediction.

Experience with computer programing such as , C++ Programming Languages, Python Programming Language , Scikit-Learn Machine Learning Library , Keras Deeplearning Library.

Publications

1. **A New Framework for Evaluating Random Early Detection Using Markov Modulate Bernoulli Process Stationary Distribution.** AA Abu-Shareha, MM Abualhaj, MA Alsharaiah, QY Shambour, International Journal of Intelligent Engineering & Systems 17 (4) (June, 2024)
2. **A comprehensive literature review on image captioning methods and metrics based on deep learning technique.** AS Al-Shamayleh, O Adwan, MA Alsharaiah, AH Hussein, QM Kharma, ... Multimedia Tools and Applications 83 (12), 34219-34268 . (March , 2024)
3. **Advanced Deep Learning Model for Predicting the Academic Performances of Students in Educational Institutions .** LH Baniata, S Kang, MA Alsharaiah, MH Baniata Applied Sciences 14 (5), 1963 . (Feb ,2024)
4. **Critical Evaluation of the Role of Cloud Systems and Networking in the Security and Growth of the Business Market.** HN Fakhouri, B Alhadidi, MA Alsharaiah, H Al Naddaf, ASA Data 2024 2nd International Conference on Cyber Resilience (ICCR), 1-7 . (March, 2024)
5. **Overview of Challenges Faced by Digital Forensic** HN Fakhouri, MA Alsharaiah, M Alkalaileh, FF Dweikat .2024 2nd International Conference on Cyber Resilience (ICCR), 1-8. (March, 2024)
6. **"An Innovative Network Intrusion Detection System (NIDS): Hierarchical Deep Learning Model Based On Unsw-Nb15 Dataset".** Mohammad A. Alsharaiah*¹, Ahmad Adel Abu-Shareha *, Mosleh Abualhaj , Laith H. Baniata , Adeeb Al-saaidah, Qasem M. Kharma and Mahran M Al-Zyoud . International Journal of Data and Network Science. (Accepted , Scopus , JAN 2024).
7. **"Innovative Malware Detection: Practical Swarm Optimization and fuzzyKNN Model in Honeypot Environment"**. Heba Othman, Mwaffaq Abu Alhija, Mohammad A. Al Sharaiah. Int. J. Advance Soft Compu. Appl, (Accepted , Scopus , JAN 2024).
8. **"Handling DNA malfunctions by unsupervised machine learning model "**. Mutaz Kh Khazaaleh, Mohammad A Alsharaiah, Wafa Alsharafat, Ahmad Adel Abu-Shareha, Feras A Haziemeh, Mwaffaq abu alhija, Al-Nawashi, Malek M, Journal of Pathology Informatics, 14, 1, 2023. (Scopus, Nov 2023)
9. **" Toward Enhancing Malware Detection Using Practical Swarm Optimization in Honeypot "**. Heba Othman,Mwaffaq Abu AlHija, Mohammad A. Alsharaiah. International Journal of Intelligent Engineering and Systems, 1,17,299-315. (Scopus, Dec 2023)
10. **" Towards fostering the role of 5G networks in the field of digital health"**. Turab, Nidal M , Al-Nabulsi, Jamal Ibrahim, Abu-Alhaija, Mwaffaq , Owida, Hamza Abu, Alsharaiah, Mohammad Abuthawabeh, Ala. S (Scopus, June 2023)
11. **"Improving VoIP Bandwidth Utilization Using the PldE Technique"**. Mosleh M. Abualhaj, Mohammad A. Alsharaiah, Ahmad A. Abu-Shareha, Sumaya N. Al-Khatib, Mahran Al-Zyoud, Adeeb Al Saaidah, Mohammad O. Hiari. (Scopus, June 2023).

12. **"A New Phishing-Website Detection Framework Using Ensemble Classification And Clustering"**. Mohammad A. Alsharaiaha^{*1}, Ahmad Adel Abu-Shareha, Mosleh Abualhajib, Laith H. Baniata, Omar Adwan, Adeeb Al-saaidahb and Majdi Oraiqat. International Journal of Data and Network Science. doi: 10.5267/j.ijdns.2023.1.003 (Scopus Q2, JAN 2023)

13. **"Proteins as fuzzy controllers: Auto tuning a biological fuzzy inference system to predict protein dynamics in complex biological networks"**. Mohammad A Alsharaiah^{*1}, Sandhya Samarasinghe, Don Kulasiri. ScienceDirect BioSystems journal homepage: www.elsevier.com/locate/biosystems <https://doi.org/10.1016/j.biosystems.2023.104826> (Scopus Q2, JAN 2023).

14. **"Android Malware Detection System Based on Ensemble Learning"**. Orieb AbuAlghanama, Hadeel Alazzamb, Mohammad Qatawneha, Omar Aladwanc, Mohammad A. Alsharaiahd, Mohammed Amin Almaiah. (Scopus, Jan 2023)

15. **"Attention Based on Long Short Term Memory Model for DNA Damage Prediction in Mammalian Cell"**. Mohammad A. Alsharaiah^{*1}, Laith H. Baniata², Omar Adwan¹, Ahmad Adel Abu-Shareha¹, Mosleh Abu Alhaj¹, Qasem Kharma¹, Abdelrahman Hussein¹ and Mohammad Baniata³. *IJACSA) International Journal of Advanced Computer Science and Applications* (Scopus Q3, Oct 2022).

16. **"Neural Network Prediction Model to Explore Complex Nonlinear Behavior in Dynamic Biological Network "**. Mohammad A. Alsharaiah^{*1}, Laith H. Baniata, Omar Al Adwan, Orieb Abu Alghanam, Ahmad Adel Abu-Shareha, Laith Alzboon, Nedal Mustafa and Mohammad Baniata. International Journal of Emerging Technologies in Learning (iJEM), (Scopus Q3, Jun 2022).

17. **"Soft Voting Machine Learning Classification Model To Predict And Expose Liver Disorder For Human Patients"**. Mohammad A. Alsharaiah^{*1}, Laith H. Baniata, Omar Al Adwan, Orieb Abu Alghanam, Ahmad Adel Abu Shareha, Mosleh Abu Alhaj, Qais Abdallah Sharayah, Mohammad Baniata. Journal of Theoretical and Applied Information Technology. (Scopus Q3, Jul 2022).

18. **"A Paradigm for DoS Attack Disclosure using Machine Learning Techniques"**. Ahmad Adel Abu-Shareha, Mohammad O. Hiari, Yousef Alrabanah, Mahran Al-Zyoud, Mohammad A. Alsharaiah. International Journal of Advanced Computer Science and Applications (IJACSA)". Volume 13 Issue 3 (Scopus Q3, March 2022).

19. **"Linear Random Early Detection For Congestion Control At The Router Buffer"**. Basil Al-Kasasbeh, Qusai Y. Shambour, Mosleh M. Abualhaj, Mohammad Abdalla Alsharaiah, Sumaya N. Al-Khatib. *informatica*, Vol 46, No 5 (Scopus Q3, 2022).

20. **"Enhancing the Speed of the Learning Vector Quantization (LVQ) Algorithm by Adding Partial Distance Computation"**. Orieb AbuAlghanam, Omar Adwan, Mohammad A. Al Sharaiah, Mohammad Qatawneh. *Cybernetics and Information Technologies*, Volume 2022. (Scopus Q2, 2022).

21. **"Adaptive Neural Fuzzy Inference System for Predicting Protein Activities"**. Mohammad A. Alsharaiah^{*1}, Majdi Sawalha, Mutaz KH. Khazaaleh, Nafea S. Alkharabsheh. Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences, (ISSN: 2279 – 0764), Volume 9– Issue 4. (Scopus Q4, 2020).

22. **"Enhancing Mobile Agent Security Level (Proposed Model)". Mohammad A. Al-sharaiah^{*1}**, Mutaz Khazaaleh Kh, Feras Haziemeh A . International Journal of Computer and Information Technology , (ISSN: 2279 – 0764), Volume 9– Issue 4. (2020)
- "Continuous Mammalian Cortical Area Development Model: Transforming from - Qualitative to Quantitative Model". Mohammad Abdallah Alsharaiah^{*1}**, Laith H. Baniata, Mutaz K. Khazaaleh. International Journal of Scientific & Technology Research, 9 (2019).
23. **"An Overview on Computational Approaches to Modeling Mammalian Cell Cycle". Mohammad Abdallah Alsharaiah^{*1}**, Mutaz Khazaaleh and Rana Shaher Soliman (2019) .. International Journal of Progressive Sciences and Technologies , Vol. 16 No.
24. **"A Survey of Cloud Computing Typology, Services Offered, Architecture and Current Cloud Systems". Mohammad A. AlSharaiah** Science Studies: An Interdisciplinary Journal for Science and Technology Studies, Vol 12. (2018)
- Before PhD Degree:
25. **"Reducing message passing and time complexity in bully Election Algorithms by using Two Successors".** Laith H. Baniata , Mohammad H. Baniata, Mohammad A. Alsharaiah . In The International Journal Of Electrnics And Electrical Engineering, Issn :2301 - 38x0) Volum 1. (2011)
- 26.
- **A draft Manuscript: Alsharaiah, M., Samarasinghe, S. and Kulasiri, Don (2024). “ An improved Boolean model of the core control system of mammalian cell cycle with greater temporal realism reveals its robustness, sensitivity and vulnerability to mutations “.**