Zarqa University

Curriculum Vitae



Name: Ahmad Hussein Amien Al-Qerem

Email: ahmad_qerm@zu.edu.jo

Major Specialization: Computer Science

Academic Rank:	**Full Professor**

Professional Objective(s):

To advance high-impact research, teaching, and innovation in computer science, with emphasis on artificial intelligence, machine learning, data science, cybersecurity, Internet of Things, mobile/edge/cloud computing, and intelligent connected systems; to develop practical, interdisciplinary solutions, supervise graduate research, strengthen research collaboration, and contribute to academic and institutional development.

Personal Information:

Extension No.:	1364
Mobile No.:	+962 79 542 6852
Address:	Computer Science Department, Zarqa University, P.O. Box 132222, Zarqa 13132, Jordan
Nationality:	Jordanian
Marital Status:	Married

Membership:

1)	Reviewer for refereed journals including KSII Transactions on Internet and Information Systems and the International Arab Journal of Information Technology (IAJIT).
2)	Program Committee Chair, International Arab Conference of e-Technology (IACe-T).
3)	Technical Program Committee member, International Arab Conference on Information Technology (ACIT).
4)	Member, International Association of Engineers (IAENG).

Qualifications:

1)	Ph.D. in Mobile Computing, Loughborough University, UK, 2008.
2)	M.Sc. in Computer Science, University of Jordan, 2002 (GPA 3.86/4, Excellent).
3)	B.Sc. in Applied Mathematics / System Analysis, Jordan University of Science and Technology, 1997 (overall average 71.9%; rank 3).
4)	

Teaching Experiences:

1)	Undergraduate Teaching Assistant, Computer Science Department, University of Jordan, Oct. 2000-Aug. 2002.
2)	Undergraduate Lecturer, Computer Science Department, Zarqa University, Sep. 2002-Aug. 2008.
3)	Assistant Professor, Computer Science Department, Zarqa University, Aug. 2008-2014.
4)	Associate Professor, Computer Science Department, Zarqa University, 2016-2019; sabbatical at Princess Sumaya University for Technology, 2018-2019.
5)	Full Professor, Computer Science Department, Zarqa University, 2020-present.

Publications:

No.	Title	Journal	Year
1	Enhancing web of things security using Harris hawks optimization with reinforcement learning	International Journal of Cognitive Computing in Engineering	2026
2	Healthcare predictions: Unmasking the strengths and weaknesses of AI models for vitamin D deficiency assessment	Journal of Genetic Engineering and Biotechnology	2026
3	Enhancing stroke prediction using generative adversarial networks for intelligent medical care	International Journal of Crowd Science	2026
4	Drone-assisted adaptive object detection and privacy-preserving surveillance in smart cities using whale-optimized deep reinforcement learning techniques	Scientific Reports	2025
5	A deep learning-driven semantic mapping strategy for robotic inspection of desalination facilities	Machines	2025
6	Adaptive conflict resolution for IoT transactions: A reinforcement learning-based hybrid validation protocol	Scientific Reports	2025
7	Impact of software quality on organizational performance	Array	2025
8	Intelligent intrusion detection system using RF, SVM, and DT: A comparison-based KDD data set	Journal of Computer Science	2025
9	Balancing consistency and performance in edge-cloud transaction management	Computers in Human Behavior	2025
10	Utilizing evidential reasoning (ER) approach for software components selection	SN Computer Science	2025
11	Enhancing organizational performance: Synergy of cyber-physical systems, cloud services, and crowdsensing	International Journal of Crowd Science	2025
12	Feature Selection in Socio-Economic Analysis: A Multi-Method Approach for Accurate Predictive Outcomes	International Journal of Crowd Science	2025
13	Ethical Foundations of AI-Driven Avatars in the Metaverse for Innovation and User Privacy	IEEE Access	2025
14	Traffic Monitoring and Control System for Smart City Pollution Regulation Using IoT and Correlated Capsule Networks	IEEE Access	2025
15	A general framework for metaverse based on parallel computing and HPC	Indonesian Journal of Electrical Engineering and Computer Science	2024
16	Elementary Stage Teachers' Towards Implementation of Blended Learning in Language Teaching and Challenges	Journal of Statistics Applications and Probability	2024

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No.	Title	Journal	Year
17	Impact of Data-Augmentation on Brain Tumor Detection Using Different YOLO Versions Models	International Arab Journal of Information Technology	2024
18	Bipartite (P6,C6)-Free Graphs: Recognition and Optimization Problems	Symmetry	2024
19	Exploring Code Vulnerabilities through Code Reviews: An Empirical Study on OpenStack Nova	Journal of Statistics Applications and Probability	2024
20	Next-Gen Phishing Defense Enhancing Detection With Machine Learning and Expert Whitelisting/Blacklisting	International Journal of Cloud Applications and Computing	2024
21	Utilizing Various Machine Learning Techniques for Diabetes Mellitus Feature Selection and Classification	International Journal of Advanced Computer Science and Applications	2024
22	Challenges of Cloud Computing in Jordanian Govt.: Insights from Telcos	Journal of Statistics Applications and Probability	2024
23	Redefining E-Commerce Experience: An Exploration of Augmented and Virtual Reality Technologies	International Journal on Semantic Web and Information Systems	2023
24	Transactional Services for Concurrent Mobile Agents over Edge/Cloud Computing-Assisted Social Internet of Things	Journal of Data and Information Quality	2023
25	Synthetic Generation of Multidimensional Data to Improve Classification Model Validity	Journal of Data and Information Quality	2023
26	Reliable prediction of software defects using Shapley interpretable machine learning models	Egyptian Informatics Journal	2023
27	Proposed synchronous electric motor simulation with built-in permanent magnets for robotic systems	SN Applied Sciences	2023
28	Ensembling validation indices to estimate the optimal number of clusters	Applied Intelligence	2023
29	Vitamin D, Cholesterol, and DXA Value Relationship with Bimaxillary Cone Beam CT Values	Journal of Clinical Medicine	2023
30	Unlocking the Potential of Competency Exam Data with Machine Learning: Improving Higher Education Evaluation	Sustainability (Switzerland)	2023
31	Explainable Machine Learning Approach for Hepatitis C Diagnosis Using SFS Feature Selection	Machines	2023
32	Enhancing Small Medical Dataset Classification Performance Using GAN	Informatics	2023

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No.	Title	Journal	Year
33	Towards a Smart Environment: Optimization of WLAN Technologies to Enable Concurrent Smart Services	Sensors	2023
34	Quantitative Evaluation of Dental Students' Perceptions of the Roleplay-Video Teaching Modality in Clinical Courses of Dentistry: A Pilot Study	Healthcare (Switzerland)	2023
35	Tabular Data Generation to Improve Classification of Liver Disease Diagnosis	Applied Sciences (Switzerland)	2023
36	Early Wildfire Smoke Detection Using Different YOLO Models	Machines	2023
37	Comparative evaluation of Host-Based Translator Mechanisms for IPv4-IPv6 Communication Performance Analysis with different Routing Protocols	International Journal of Cloud Applications and Computing	2023
38	The Meta-Fusion: A Cloud-Integrated Study on Blockchain Technology Enabling Secure and Efficient Virtual Worlds	International Journal of Cloud Applications and Computing	2023
39	Correspondence of OOP Refactoring Techniques in PL\SQL Environment: A Case Study of Agile Project Code	Applied Mathematics and Information Sciences	2023
40	Optimal Control Strategy on Mathematical Model for the Dynamics of Mastitis	Applied Mathematics and Information Sciences	2023
41	Using Consensus Algorithm for Blockchain Application of Roaming Services for Mobile Network	International Journal of Advances in Soft Computing and its Applications	2023
42	Machine Learning Approach for Metabolic Syndrome Diagnosis Using Explainable Data-Augmentation-Based Classification	Diagnostics	2022
43	A Novel Fuzzy Logic-Based Scheme for Malicious Node Eviction in a Vehicular Ad Hoc Network	Electronics (Switzerland)	2022
44	An Effective Negotiation Strategy for Quantitative and Qualitative Issues in Multi-Agent Systems	Electronics (Switzerland)	2022
45	An efficient machine-learning model based on data augmentation for pain intensity recognition	Egyptian Informatics Journal	2020
46	IoT transaction processing through cooperative concurrency control on fog–cloud computing environment	Soft Computing	2020
47	General model for best feature extraction of EEG using discrete wavelet transform wavelet family and differential evolution	International Journal of Distributed Sensor Networks	2020
48	An efficient reinforcement learning-based Botnet detection approach	Journal of Network and Computer Applications	2020

Publications:

No.	Title	Journal	Year
49	Default prediction model: The significant role of data engineering in the quality of outcomes	International Arab Journal of Information Technology	2020
50	Model improvement through comprehensive preprocessing for loan default prediction	International Journal of Scientific and Technology Research	2020
51	Human body poses recognition using neural networks with data augmentation	International Journal of Advanced Trends in Computer Science and Engineering	2019
52	Circular shape formation using self adaptive collective motion of swarm robots	International Journal of Advanced Trends in Computer Science and Engineering	2019
53	Victim localization using Darwinian imperialist competitive algorithm	Journal of Theoretical and Applied Information Technology	2019
54	Scheduling of concurrent transactions in broadcasting environment	KSII Transactions on Internet and Information Systems	2018
55	Statistical-based heuristic for tasks scheduling in cloud computing environment	International Journal of Communication Networks and Information Security	2018
56	Critical proficiencies for requirements analysts: Reflect a real-world needs	International Arab Journal of Information Technology	2018
57	Empirical study of analysts' practices in packaged software implementation at small software enterprises	International Arab Journal of Information Technology	2017
58	Assuring interoperability between heterogeneous (IPv4/IPv6) networks without using protocol translation	IETE Technical Review	2012
59	Modelling concurrent mobile transactions execution in broadcasting environments	International Arab Journal of Information Technology	2008

Books:

No.	Title	Publisher	Year
1	Governance and Policy Development for Research Institution Cyber Insurance	IGI Global	2025
2	Institutional Policies for Generative AI Implications for Cyber-Insurance Governance	IGI Global	2025
3	Supply Chain and Third Party Risk Transfer: Designing Coverage for Vendor Ecosystems	IGI Global	2025

4	AI-Enabled Predictive Analytics in Cybersecurity Insurance Optimising Risk Transfer and Digital Resilience	IGI Global	2025
5	Cyber threat intelligence and APTs: Proactive measures for evolving threat landscapes	IGI Global	2025
6	Human-centric cybersecurity: Addressing insider threats and organizational culture	IGI Global	2025

Conferences:

No.	Title Mark (-) for attendance only	Organizing Institution	Year
1	Exploring Cybersecurity Data Patterns: A Comparative Analysis of Dimensionality Reduction Techniques	ACM	2025
2	Reinforcement Learning-Based Intrusion Detection for Electric Vehicle Charging Stations	IEEE	2025
3	Optimizing Multimodal Feature Alignment for Enhanced Text-to-Video Retrieval Performance	IEEE	2025
4	AI for Software Project Management: Predicting Delivery Times & Resource Allocation	IEEE	2025
5	Artificial Intelligence Innovations and Strategic Insights for a Smart Retail Transformation	IEEE	2025
6	Evaluating Reinforcement Learning Reward Functions for APT Detection in Industrial IoT Systems	IEEE	2025
7	Adaptive Computer Vision Solutions for Individuals with Special Needs	IEEE	2025
8	Enhancing IoT Security and Efficiency Using Machine Learning	IEEE	2025
9	A Proposed Framework for Autonomous Cyber Defense Strategies for Electric Vehicle Network	IEEE	2025
10	Enhancing Financial Stability: Machine Learning Models for Bank Loan Risk Prediction	IEEE	2025
11	An Efficient and Interpretable Method for Large-Scale Data Classification	IEEE	2025

Conferences:

No.	Title Mark (-) for attendance only	Organizing Institution	Year
12	Park4U: A Blockchain-Based Parking Reservation and Management for Smart Cities	IEEE	2025
13	Transformer-Based Method for Arabic Entity Extraction	IEEE	2025
14	Towards Smarter Supply Chains: Machine Learning Methodologies for Delivery Risk Assessment	IEEE	2025
15	Citizenship Engagement with Government Electronic Services a Case Study of 'Companies Control Department of Jordan'	IEEE	2025
16	Assessing WLAN 802.11ac vs. 802.11n Using OPNET: An Evaluation of Comparative Performance. Lecture Notes in Networks and Systems, 1284, 656-670	Springer	2025
17	Advancing Stroke Prediction: Explainable Machine Learning Models and Data Augmentation Strategies	IEEE	2024
18	Detection of Thyroid Disease Through Machine Learning Technique	IEEE	2024
19	Transformer-based Text Classification on Unified Bangla Multi-class Emotion Corpus	IEEE	2024
20	Explainable AI for Epileptic Seizure Prediction: A SHAPE and LIME Approach	IEEE	2024
21	Unveiling Deception: Different Strategies for Combatting Arabic Fake News	IEEE	2024
22	Design and Simulation of a Network Infrastructure for a Multi-Branch Organization Using Cisco Packet Tracer	IEEE	2024
23	Spectrum Serenade: OPNET Expedition Unveiling WLAN 802.11e Performance Evaluation. Lecture Notes in Networks and Systems, 1156, 558-571	Springer	2024
24	Enterprise Resource Planning Implementation: Challenges and Barriers. Eurasia Proceedings of Science, Technology, Engineering and Mathematics, 28, 300-307	Eurasia Proceedings	2024
25	Video Conferencing: The Architect's Assistant, a Trailblazing Algorithm for Optimal Technology Choice. Lecture Notes in Networks and Systems, 1016, 508-522	Springer	2024
26	Cyberbullying Detection Using Deep Learning: A Comparative Study	IEEE	2024

Conferences:

No.	Title Mark (-) for attendance only	Organizing Institution	Year
27	Realizing the Potential of Metaverse to Revolutionize the Future of Healthcare	IEEE	2024
28	Malware Threats Targeting Cryptocurrency: A Comparative Study	IEEE	2024
29	CNNs in Crop Care: A Comparative Analysis of Tomato Disease Detection Models	IEEE	2024
30	IoT Security Challenges in Modern Smart Cities	IEEE	2024
31	Machine Learning Models for Brain Signal Classification: A Focus on EEG Analysis in Epilepsy Cases	IEEE	2024
32	The effect of Data Augmentation Using SMOTE: Diabetes Prediction by Machine Learning Techniques	ACM	2023
33	Feature Selection in Associative Classification-A Review and Comparative Analysis	IEEE	2023
34	Techniques for Long-Term Service Prioritization and Optimization Using IEEE 802.11 Technologies (Email and HTTP). Lecture Notes in Networks and Systems, 711, 980-999	Springer	2023
35	Predictive Model Building for Pain Intensity Using Machine Learning Approach. Lecture Notes in Networks and Systems, 599, 24-32	Springer	2023
36	Software Quality Attributes Assessment and Prioritization Using Evidential Reasoning (ER) Approach. Lecture Notes in Networks and Systems, 599, 191-199	Springer	2023
37	The Ability of Ultra Wideband to Differentiate between Hematoma and Tumor Occur in the Brain	IEEE	2022
38	Comparison between transfer learning and data augmentation on medical images classification	IEEE	2021
39	Loan default prediction model improvement through comprehensive preprocessing and features selection	IEEE	2019
40	Privacy preserving of shared data in deep learning	IEEE	2019
41	Image generation using different models of generative adversarial network	IEEE	2019
42	Rogue access point localization using particle swarm optimization	IEEE	2017

Conferences:

No.	Title Mark (-) for attendance only	Organizing Institution	Year
43	A propose model for shared understanding of software requirements (SUSRs). Lecture Notes in Electrical Engineering, 376, 1045-1056	Springer	2016
44	Classification of transaction models in mobile database system	IEEE	2015
45	Integrated monitoring application of patient progression: Clubfoot patient progression as case study	IEEE	2015
46	Impact of mobility on concurrent transactions mixture	IAENG / Conference Proceedings	2012
47	Concurrency control for mobile transactions in presence of bandwidth variability	Conference Proceedings	2011
48	Impact of mobility on concurrent transactions mixture	Conference Proceedings	2011
49	Location dependent transaction for mobile environment	IEEE	2006

Supervision of Graduate Studies:

No.	Title Theses or Dissertations	University	Year
1	Rogue Access Point Localization Using Particle Swarm Optimization	Zarqa University	2016
2	An Enhanced Keyword Selection Technique for Document Clustering	Zarqa University	2016
3	An Efficient Heuristics for Grid Computing Environment	Zarqa University	2015

Community Service Activities:

No.	Activity	Venue of the activity	Year
1	Research Methodology seminar	Digit Research Group (DIGTRG)	2016
2	Adaptive Learning in E-learning Systems seminar	UCAAC	2017
3	Machine Learning seminar	Digit Research Group / MAGTele Company	2018