Princess Sumaya University for Technology

جامعـــة الأميــرة سميّـــة للتكنولوجيا

King Hussein School of Computing Sciences

كليــــة الملك الحسين لعلــــوم الحوسبــــة

KHSCS: Research Areas with samples

2023 - 2024

Machine Learning and AI

■ Prediction Systems & Data Mining Classifiers

o Altamimi, A.M. and Azzeh, M., 2022. Utilizing Data Mining Classification Algorithms for Early Diagnosis of Heart Diseases. Predicting Heart Failure: Invasive, Non-Invasive, Machine Learning and Artificial Intelligence Based Methods, pp.155-170 (Heart Diseases; Prediction Systems; Data Mining Classifiers; Ensemble Learning)

o Zriqat, I.A., Altamimi, A.M. and Azzeh, M., 2017. A comparative study for predicting heart diseases using data mining classification methods. arXiv preprint arXiv:1704.02799.

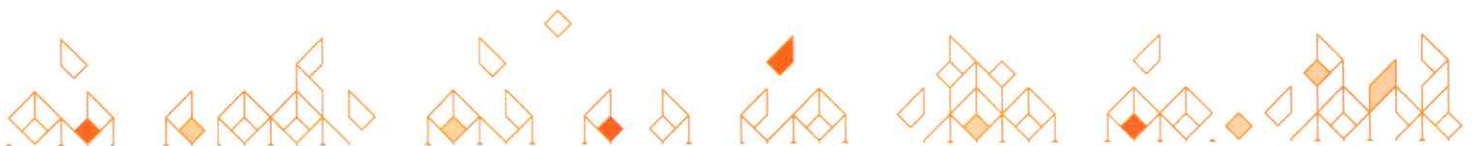### ■ Convolutional neural network (CNN) & Deep Neural Network

o Qattous, H., Azzeh, M., Ibrahim, R., Al-Ghafer, I.A., Al Sorkhy, M. and Alkhateeb, A., 2024. PaCMAP-embedded convolutional neural network for multi-omics data integration. Heliyon, 10(1). (Multi-omics data integration, Embedding techniques, PaCMAP, Convolutional neural network)

■ Speech Recognition

o Nassif, A.B., Shahin, I., Attili, I., Azzeh, M. and Shaalan, K., 2019. Speech recognition using deep neural networks: A systematic review. IEEE access, 7, pp.19143-19165. (Speech recognition, deep neural network, systematic review)

■ Natural Language Processing & Text Classification

o Refai, D., Abu-Soud, S. and Abdel-Rahman, M.J., 2023. Data Augmentation Using Transformers and Similarity Measures for Improving Arabic Text Classification. IEEE Access, 11, pp.132516-132531.

o Alian, M. and Awajan, A., 2023. Arabic word sense disambiguation using sense inventories. International Journal of Information Technology, 15(2), pp.735-744.

o Etaiwi, W. and Awajan, A., 2023. SemanticGraph2Vec: Semantic graph embedding for text representation. Array, 17, p.100276.

o Younisse, R. and Azzeh, M., 2023, November. Application of Natural Language Processing Techniques in Agile Software Project Management: A Survey. In 2023 14th International Conference on Information and Communication Systems (ICICS) (pp. 01-06). IEEE.

■ **Time-Series Forecasting**

o Istaiteh, O., Owais, T., Al-Madi, N. and Abu-Soud, S., 2020, October. Machine learning approaches for covid-19 forecasting. In 2020 international conference on intelligent data science technologies and applications (IDSTA) (pp. 50-57). IEEE

■ **Deep Learning & Data Mining**

o Ghnemat, R., Almodawar, A. and Al Saraireh, J., 2024. Scalable model for segmenting Cells' Nuclei using the U-NET architecture. Multimedia Tools and Applications, pp.1-24. (Deep Learning)

o ibat, D., Jamjoom, S., Al-Haija, Q.A. and Qusef, A., 2023. A systematic review: Detecting phishing websites using data mining models. Intelligent and Converged Networks, 4(4), pp.326-341.(Data mining, phishing;)

o Atiani, S., Elhilali, M., David, S.V., Fritz, J.B. and Shamma, S.A., 2009. Task difficulty and performance induce diverse adaptive patterns in gain and shape of primary auditory cortical receptive fields. Neuron, 61(3), pp.467-480

■ **Statistics**

o Alshammari, M.S., Afify, A.A. and Abdelhay, O., 2019. Perception and convenience of caring for children with autism spectrum disorder among family medicine residents in Riyadh 2018. Journal of Family Medicine and Primary Care, 8(6), p.1902.(Attitude, autism, autism spectrum disorder, autistic disorder, awareness, health knowledge, knowledge, perception, practice, residents)

■ **Recommendation predictions**

o Fraihat, S., Abu Tahon, B., Alhijawi, B. and Awajan, A., 2023. Deep encoder–decoder-based shared learning for multi-criteria recommendation systems. Neural Computing and Applications, 35(34), pp.24347-24356. (the shared learning technique, Recommendation predictions.)

o Alhijawi, B., Fraihat, S. and Awajan, A., 2023. Adaptable inheritance-based prediction model for multi-criteria recommender system. Multimedia Tools and Applications, pp.1-22.

■ **web knowledge, Semantic Web & Sentiment Analysis**

o Al-Smadi, M., Al-Ayyoub, M., Jararweh, Y. and Qawasmeh, O., 2019. Enhancing aspect-based sentiment analysis of Arabic hotels' reviews using morphological, syntactic and semantic features. Information Processing & Management, 56(2), pp.308-319. (Semantic Evaluation, Artificial Intelligence, web knowledge, NLP)

o Diefenbach, D., Migliatti, P.H., Qawasmeh, O., Lully, V., Singh, K. and Maret, P., 2019, May. QAnswer: A Question Answering prototype bridging the gap between a considerable part of the LOD cloud and end-users. In The World Wide Web Conference (pp. 3507-3510). (Question Answering, Semantic Web, Multilingual, Multi-Knowledge-Base)

Networking

■ IoT

- o Ibrahim, R.F., Abu Al-Haija, Q. and Ahmad, A., 2022. DDoS attack prevention for Internet of Thing devices using Ethereum blockchain technology. Sensors, 22(18), p.6806. (blockchain; Ethereum; smart contract; authorization; DDoS attacks; IoT)

- o Abushwereb, M., Alkasassbeh, M., Almseidin, M. and Mustafa, M., 2022. An accurate IoT intrusion detection framework using apache spark. arXiv preprint arXiv:2203.04347. (Big data, Internet of things (IoT), Apache spark, Intrusion Detection System (IDS))

■ Blockchain

- o Ibrahim, R.F., Abu Al-Haija, Q. and Ahmad, A., 2022. DDoS attack prevention for Internet of Thing devices using Ethereum blockchain technology. Sensors, 22(18), p.6806.

- o Ibrahim, R.F., Elian, A.M. and Ababneh, M., 2021, July. Illicit account detection in the ethereum blockchain using machine learning. In 2021 international conference on information technology (ICIT) (pp. 488-493). IEEE. Ethereum, Blockchain, Fraud Detection, machine learning, Illicit account detection

■ Wireless Sensor Networks (WSN)

- o Ahmad, A., Hababeh, M., Abu-Hantash, A., AbuHour, Y. and Musleh, H., 2020. Reduce Effect of Dependent Malicious Sensor Nodes in WSNs using Pairs Counting and Fake Packets. INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL, 15(5). (Wireless Sensor Networks (WSN), dependent malicious sensor nodes, detection and prevention methods.)

- o Ahmad, A., Hababeh, M., Abu-Hantash, A., AbuHour, Y. and Musleh, H., 2020. Reduce Effect of Dependent Malicious Sensor Nodes in WSNs using Pairs Counting and Fake Packets. INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL, 15(5).

■ Routing & Network traffic Analysis

- o Taleb, A.A., 2018. A comparative study of mobility models for wireless sensor networks. J. Comput. Sci, 14(10), pp.1279-1292. (Wireless Sensor Networks (WSNs), Mobility Models, Routing, Mobile Sink)

- o Almomani, A., Alauthman, M., Alkasassbeh, M., Samara, G. and Liu, R.W., 2021, September. A Proposed Darknet Traffic Classification System Based on Max Voting Algorithms. In International Conference on Cyber Security, Privacy and Networking (pp. 349-355). Cham: Springer International Publishing. (Network traffic Analysis)

■ **Mobile ad-hoc network**

o Abdallah, A.E., Fayyoumi, E., Abdallah, E.E., Qawasmeh, A. and Almalkawi, I., 2022. Spherical-based routing protocols for three-dimensional MANET. International Journal of Computing Science and Mathematics, 16(2), pp.125-135. (mobile ad-hoc network,)

■ **Control and communication**

o Al-Mousa, A., Sababha, B.H., Al-Madi, N., Barghouthi, A. and Younisse, R., 2019. UTSim: A framework and simulator for UAV air traffic integration, control, and communication. International Journal of Advanced Robotic Systems, 16(5), p.1729881419870937. (Air traffic integration, control and communication, sense and avoid (S&A), UAV, simulation, Unity, unmanned aerial systems)

■ **Resource allocation & statistical multiplexing**

o Chatterjee, S., Abdel-Rahman, M.J. and MacKenzie, A.B., 2021. On Optimal Orchestration of Virtualized Cellular Networks With Statistical Multiplexing. IEEE Transactions on Wireless Communications, 21(1), pp.310-325.

o Abdel-Rahman, M.J., AlWaqfi, A.M., Atoum, J.K., Yaseen, M.A. and MacKenzie, A.B., 2023. A Novel Multi-Objective Sequential Resource Allocation Optimization for UAV-Assisted VLC. IEEE Transactions on Vehicular Technology.

■ **UAVs & VLC**

o Al-Mousa, A., Sababha, B.H., Al-Madi, N., Barghouthi, A. and Younisse, R., 2019. UTSim: A framework and simulator for UAV air traffic integration, control, and communication. International Journal of Advanced Robotic Systems, 16(5), p.1729881419870937. (Air traffic integration, control and communication, sense and avoid (S&A), UAV, simulation, Unity, unmanned aerial systems)

■ **Software-Defined Networking**

o Alhijawi, B., Almajali, S., Elgala, H., Salameh, H.B. and Ayyash, M., 2022. A survey on DoS/DDoS mitigation techniques in SDNs: Classification, comparison, solutions, testing tools and datasets. Computers and Electrical Engineering, 99, p.107706.(Software-Defined Networking, Denial of Service (DoS) attack.)

■ **Cloud computing & edge computing**

o Hamdan, S., Ayyash, M. and Almajali, S., 2020. Edge-computing architectures for internet of things applications: A survey. Sensors, 20(22), p.6441.

Cyber Security

Intrusion detection system (IDS) & Adversarial attacks

- o Alslman, Y., Alkasassbeh, M. and Almseidin, M., 2023. A Robust SNMP-MIB Intrusion Detection System Against Adversarial Attacks. Arabian Journal for Science and Engineering, pp.1-17.

Kerberoasting & Cyberattacks

- o Younisse, R., Alkasassbeh, M., Almseidin, M. and Abdi, H., 2023. AN EARLY DETECTION MODEL FOR KERBEROASTING ATTACKS AND DATASET LABELING. Jordanian Journal of Computers and Information Technology, 9(1).

- o Al-Fawa'reh, M., Al-Fayoumi, M., Nashwan, S. and Fraihat, S., 2022. Cyber threat intelligence using PCA-DNN model to detect abnormal network behavior. Egyptian Informatics Journal, 23(2), pp.173-185.
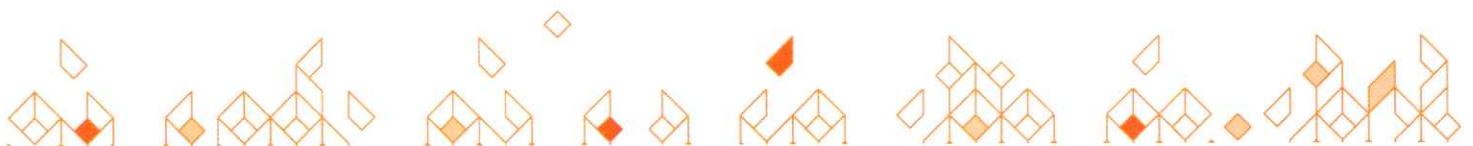
Attack life-cycle

- o Al-Fayoumi, M. and Al-Haija, Q.A., 2023. Capturing low-rate Ddos attack based on Mqtt protocol in software defined-Iot environment. Array, 19, p.100316.

Digital & IoT Forensics

- o Jafar, M.T., Ababneh, M., Al-Zoube, M. and Elhassan, A., 2020, April. Forensics and analysis of deepfake videos. In 2020 11th international conference on information and communication systems (ICICS) (pp. 053-058). IEEE.

- o Tayseer, M., Mohammad, J., Ababneh, M., Al-Zoube, A. and Elhassan, A., 2020, April. Digital Forensics and Analysis of Deepfake Videos. In 11th International Conference on Information and Communication Systems (ICICS).

- o Hambouz, A., Shaheen, Y. and Ababneh, M., 2021, April. An Internet of Things (IoT) forensics model using third-party logs-vault. In International Conference on Data Science, E-learning and Information Systems 2021 (pp. 143-146)

Dataset labeling

- o Al-Qudah, M., Ashi, Z., Alnabhan, M. and Abu Al-Haija, Q., 2023. Effective One-Class Classifier Model for Memory Dump Malware Detection. Journal of Sensor and Actuator Networks, 12(1), p.5.

■ Intrusion, Anomaly & fake news Detection

o Qalaja, E.K., Al-Haija, Q.A., Tareef, A. and Al-Nabhan, M.M., 2022. Inclusive study of fake news detection for COVID-19 with new dataset using supervised learning algorithms. International Journal of Advanced Computer Science and Applications, 13(8).

■ Password Security

o Alkurdi, Y., Al Fayoumi, M., Al-badarneh, A. and Al-Haija, Q.A., 2023, August. Enhancing Password Security via Supervised Learning. In 2023 International Conference on Information Technology (ICIT) (pp. 256-259). IEEE

■ Cyber-Phishing & Phishing Detection

o Almseidin, M., Alkasassbeh, M., Alzubi, M. and Al-Sawwa, J., 2022. Cyber-Phishing Website Detection Using Fuzzy Rule Interpolation. Cryptography, 6(2), p.24

o Abutaha, M., Ababneh, M., Mahmoud, K. and Baddar, S.A.H., 2021, May. URL phishing detection using machine learning techniques based on URLs lexical analysis. In 2021 12th International Conference on Information and Communication Systems (ICICS) (pp. 147-152). IEEE.

■ Security and privacy & Mobile platform security

o Saif, A., Al-Kilani, H., Qasaimeh, M. and Al-Refai, A., 2021, April. Analysis of Android applications permissions. In International Conference on Data Science, E-learning and Information Systems 2021 (pp. 243-249). Security and privacy » Systems security; Operating systems security; Mobile platform security

■ Open Wi-Fi networks Security

o Karaymeh, A., Ababneh, M., Qasaimeh, M. and Al-Fayoumi, M., 2019, October. Enhancing data protection provided by VPN connections over open WiFi networks. In 2019 2nd International Conference on new Trends in Computing Sciences (ICTCS) (pp. 1-6). IEEE.

■ Cyber laws

o Al-Enizi, Z.K. and Naser, M., 2022. The Law Applicable to P2P Networks on National and International Bases for Violating Intellectual Property Rights. International Journal of Cyber Warfare and Terrorism (IJCWT), 12(1), pp.1-10. cyber laws, Copyright Law, Information Technology, Intellectual Property Rights Infringement, Peer-to-Peer Networks
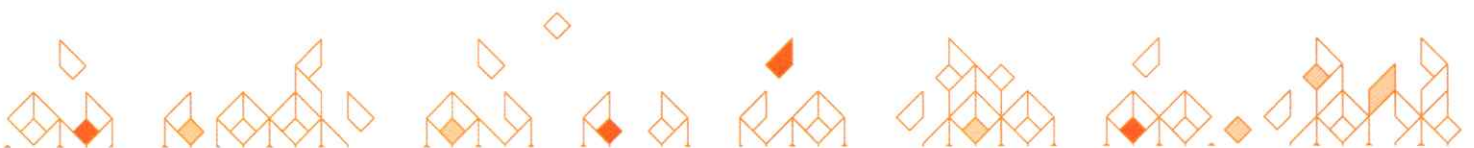
Image processing

- Abdel-Nabi, H., Ali, M.Z. and Awajan, A., 2023. A joint Multi-decoder Dual-attention U-Net framework for tumor segmentation in Whole Slide Images. Journal of King Saud University-Computer and Information Sciences, 35(10), p.101835. Whole Slide Images, Medical Image Segmentation, Histopathological Slides, PAIP 2019, Digest Path

- Abdel-Nabi, H., Ali, M.Z. and Awajan, A., 2023. A multi-scale 3-stacked-layer coned U-net framework for tumor segmentation in whole slide images. Biomedical Signal Processing and Control, 86, p.105273.

- Abdel-Nabi, H., Ali, M., Awajan, A., Daoud, M., Alazrai, R., Suganthan, P.N. and Ali, T., 2023. A comprehensive review of the deep learning-based tumor analysis approaches in histopathological images: segmentation, classification and multi-learning tasks. Cluster Computing, pp.1-41.

- Al-Oudat, M., Alomari, S., Qattous, H., Azzeh, M. and Al-Munaizel, T., 2022. An Interactive automation for human biliary tree diagnosis using computer vision. arXiv preprint arXiv:2209.04646. Biliary Tree; Image Processing; Biliary duct; Deep Learning; Bile Duct; Bioengineering; Bioinformatics

- Mohammad, A.O., Azzeh, M., Qattous, H., Altamimi, A. and Alomari, S., 2022. Image Segmentation based Deep Learning for Biliary Tree Diagnosis. Webology, 19(1), pp.1834-1849. Biliary Tree, Bile Duct, Deep Neural Network, Segmentation, Image Processing.

- Ghnemat, R., Almodawar, A. and Al Saraireh, J., 2024. Scalable model for segmenting Cells' Nuclei using the U-NET architecture. Multimedia Tools and Applications, pp.1-24.

- Younisse, R., Ghnemat, R. and Al Saraireh, J., 2023. Fine-tuning U-net for medical image segmentation based on activation function, optimizer and pooling layer. International Journal of Electrical & Computer Engineering (2088-8708), 13(5). Activation function, Fine-tune, Image segmentation, U-net, X-ray images

- Bdair, T., Wiestler, B., Navab, N. and Albarqouni, S., 2022. ROAM: Random layer mixup for semi-supervised learning in medical images. IET Image Processing, 16(10), pp.2593-2608. (Medical imaging segmentation, image processing)

Distributed systems

- Mahafzah, B.A., 2023. Parallel bucket sort algorithm on optical chained-cubic tree interconnection network. Sorting, Bucket sort, Parallel bucket algorithm, Interconnection network, Optoelectronic architecture

- Mahafzah, B.A., Jabri, R. and Murad, O., 2021. Multithreaded scheduling for program segments based on chemical reaction optimizer. Soft Computing, 25, pp.2741-2766. Multithreaded scheduling

- Al-Adwan, A., Zaghloul, R., Mahafzah, B.A. and Sharieh, A., 2020. Parallel quicksort algorithm on OTIS hyper

hexa-cell optoelectronic architecture. Journal of Parallel and Distributed Computing, 141, pp.61-73. Parallel quicksort, Parallel sorting, Interconnection network, OTIS, Optoelectronic architecture

- Al-Adwan, A., Sharieh, A. and Mahafzah, B.A., 2019. Parallel heuristic local search algorithm on OTIS hyper hexa-cell and OTIS mesh of trees optoelectronic architectures. Applied Intelligence, 49, pp.661-688.

- Mahafzah, B.A., Al-Adwan, A.A. and Zaghloul, R.I., 2022. Topological properties assessment of optoelectronic architectures. Telecommunication Systems, 80(4), pp.599-627.(optoelectronic architectures)

- Hassan, O.A.H., Qtaish, O., Abuhamdeh, M. and Hassan, M.A.H., 2019. A hybrid exam scheduling technique based on graph coloring and genetic algorithms targeted towards student comfort. International Journal of Advanced Computer Science and Applications, 10(3). Exam scheduling; optimization; graph coloring; genetic algorithms; time tabling; fitness value

- Al-Haj Hassan, O.M., Ramaswamy, L., Hamad, F. and Abu Taleb, A., 2014. Cooperative distributed architecture for mashups. Enterprise Information Systems, 8(3), pp.406-444. distributed architecture

Software Engineering ○○○

- Hassan, O.A.H., Samhan, A., Alhajhassan, S. and Hammad, R., 2023. ARivaT: A Tool for Automated Generation of Riva-based Business Process Architecture Diagrams. IEEE Access. business process architecture, business process management, software requirements, automation, forward engineering.

- Hassan, O.A.H., Qtaish, O., Abuhamdeh, M. and Hassan, M.A.H., 2019. A hybrid exam scheduling technique based on graph coloring and genetic algorithms targeted towards student comfort. International Journal of Advanced Computer Science and Applications, 10(3). Exam scheduling; optimization; graph coloring; genetic algorithms; time tabling; fitness value

- Issa, L., Alghanim, F. and Obeid, N., 2019, June. Computational creativity: The design of a creative computer program. In 2019 10th International Conference on Information and Communication Systems (ICICS) (pp. 193-198). IEEE. (computer program)

- Qatanani, D.O. and Qusef, A., 2023, August. Factors Influencing The Adoption of E-commerce in Jordanian SMEs. In 2023 International Conference on Information Technology (ICIT) (pp. 244-249). IEEE. (E-commerce)

- Qatanani, D.O. and Qusef, A., 2023, May. Mobile Application Testing Strategies and Challenges: A Case Study In Jordan. In 2023 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) (pp. 58-63). IEEE. Mobile Application Testing, Challenges, Jordan, Testing Strategy, MAT

- Kiblawi, T., Muhanna, M. and Qusef, A., 2023, May. The Role of Software Architecture in Business Model Transformability. In 2023 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) (pp. 68-73). IEEE.(software architecture, business model, digital, disruption, agility, transformability.)

- Murad, S., Qusef, A. and Muhanna, M., 2023. CHR vs. human-computer interaction design for emerging technologies: Two case studies. Advances in Human-Computer Interaction, 2023.(human-computer interaction)

- Khlefat, H., Attar, H. and Qusef, A., 2022, November. E-Food: Success Factors for Establishing Online Food Retailing: A Case Study from Jordan. In 2022 International Conference on Emerging Trends in Computing and Engineering Applications (ETCEA) (pp. 1-6). IEEE. E-Food, online food retailing, supply chain, COVID-19

- Salamin, S. and Qusef, A., 2022, November. Key Factors Influencing Consumers' Behavioral Intention towards Adopting and Using Mobile Commerce Services Amid and Post COVID-19 Pandemic. In 2022 International Arab Conference on Information Technology (ACIT) (pp. 1-9). IEEE. E-Commerce; Mobile Commerce; UTAUT; User Acceptance; User Adoption; Behavioral Intention; COVID-19 Pandemic

- Irsheid, A., Murad, A., AlNajdawi, M. and Qusef, A., 2022. Information security risk management models for cloud hosted systems: A comparative study. Procedia Computer Science, 204, pp.205-217.Cloud Risk Management; Cloud Hosting.

- Qatanani, D. and Qusef, A., 2021, November. SUCCESS FACTORS OF AGILE PROJECTS: CASE STUDY FOR PROJECTS IN JORDAN DURING COVID-19 PANDEMIC. In 2021 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) (pp. 95-102). IEEE (Agile software development; Project management; Productivity in COVID-19)

- Qusef, A., Ayasrah, A. and Shaout, A., 2021. Comprehensive Approach to Implement E-Government Backend in Jordan Using Service-Oriented Architecture. International Journal of Software Innovation (IJSI), 9(2), pp.122-135. E-Government

VR (Virtual Reality) ○○

- Jusoh, S. and Al-Hiyari, N., 2023, July. VR First Aid: Step by Step Development Process. In 2023 International Conference on Consumer Electronics-Taiwan (ICCE-Taiwan) (pp. 155-156). IEEE. VR First Aid training, Oculus, VR training

- Al-Hiyari, N.N. and Jusoh, S.S., 2021, April. Healthcare Training Application: 3D First Aid Virtual Reality. In International Conference on Data Science, E-learning and Information Systems 2021 (pp. 107-116). virtual reality, virtual aid, first aid, VR training

Game Design

- Muhanna, M. and Saleh, Y., 2023. The Impact of Serious Games on Learning User Interface Design Guidelines. International Journal of Computing and Digital Systems, 14(1), pp.1-xx. Serious Games, User Interface Guidelines, Game Design

- Qusef, A., Ayasreh, A., Shaout, A. and Muhanna, M., 2019. By two: A two-dimensional mobile game model for novice developers. Indonesian Journal of Electrical Engineering and Computer Science, 14(3), pp.1336-1344. Android, By Two, Indie game project, iOS, Mobile games

Algorithms

- Hraiz, R., Khader, M. and Shaout, A., 2019. A multi-stage fuzzy model for assessing applicants for faculty positions in universities. International Journal of Intelligent Information Technologies (IJIIT), 15(1), pp.1-33. (Fuzzy Logic, Imprecise Data, Multi-Stage Fuzzy Modeling)

- Abdel-Nabi, H., Ali, M.Z., Awajan, A., Alazrai, R., Daoud, M.I. and Suganthan, P.N., 2023. An iterative cyclic tri-strategy hybrid stochastic fractal with adaptive differential algorithm for global numerical optimization. Information Sciences, 628, pp.92-133.

- AlMahmoud, R.H., Hammo, B. and Faris, H., 2020. A modified bond energy algorithm with fuzzy merging and its application to Arabic text document clustering. Expert Systems with Applications, 159, p.113598. (bond energy algorithm, fuzzy)

- Alwidian, J., Hammo, B.H. and Obeid, N., 2018. WCBA: Weighted classification based on association rules algorithm for breast cancer disease. Applied Soft Computing, 62, pp.536-549.(association rules algorithm)

- Abu Al-Haija, Q., Odeh, A. and Qattous, H., 2022. PDF Malware Detection Based on Optimizable Decision Trees. Electronics, 11(19), p.3142. optimizable decision tree; AdaBoost; PDF malware; evasion attacks;

- Alhijawi, B. and Awajan, A., 2023. Genetic algorithms: Theory, genetic operators, solutions, and applications. Evolutionary Intelligence, pp.1-12.(Genetic algorithms)

- Abdel-Rahman, M., MAZIED, E., HASSAN, F., Teague, K., AL-SHAGGAH, A.T.H.E.E.R., MACKENZIE, A., Midkiff, S. and Cardoso, K.V., 2023. A Stochastic Optimization Framework for Joint RAN Intelligent Controller Placement and RAN Nodes Assignment in O-RAN Networks. Authorea Preprints.

Database

- AlOmari, H., Alkhateeb, A. and Hammo, B., 2023. Multi-Omics Databases. Machine Learning Methods for Multi-Omics Data Integration, pp.151-166.(Multi-Omics Databases)

- Abuqaddom, I. and Hammo, B., 2017, December. A survey of data replication techniques for MANET databases. In 2017 2nd International Conference on the Applications of Information Technology in Developing Renewable Energy Processes & Systems (IT-DREPS) (pp. 1-6). IEEE.(MANET databases)

- Al-Sakran, A., Qattous, H. and Hijjawi, M., 2018, July. A proposed performance evaluation of NoSQL databases in the field of IoT. In 2018 8th International conference on computer science and information technology (CSIT) (pp. 32-37). IEEE. NoSQL; MongoDB; Big Data; Chord protocol; RDBMS; BASE.

- Al-Saraireh, J., 2019. A novel approach for query over encrypted data in database. International Journal of Information and Computer Security, 11(6), pp.621-636. (SQL; hash value; secure data; database; security; encryption.)

Computing Education

- Prather, J., Denny, P., Leinonen, J., Becker, B.A., Albluwi, I., Craig, M., Keuning, H., Kiesler, N., Kohn, T., Luxton-Reilly, A. and MacNeil, S., 2023. The robots are here: Navigating the generative ai revolution in computing education. In Proceedings of the 2023 Working Group Reports on Innovation and Technology in Computer Science Education (pp. 108-159).

- Prather, J., Denny, P., Leinonen, J., Becker, B.A., Albluwi, I., Caspersen, M.E., Craig, M., Keuning, H., Kiesler, N., Kohn, T. and Luxton-Reilly, A., 2023, June. Transformed by transformers: Navigating the ai coding revolution for computing education: An iticse working group conducted by humans. In Proceedings of the 2023 Conference on Innovation and Technology in Computer Science Education V. 2 (pp. 561-562). Social and professional topics » Computing education; Computing methodologies » Artificial intelligence.