DR.HALA SHAARI

(PH.D., M.SC., B.SC)

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PROFILE

Dr. Hala Shaari is an Associate Professor in the Department of Data Sciences & Artificial Intelligence at the Faculty of Information Technology. She holds a Ph.D. in Information Technologies (in Deep Learning) from the International Burch University in Sarajevo and an M.Sc. in Computer and Internet Technologies from the University of Strathclyde, UK, along with a B.Sc. in Computer Science from the University of Tripoli.

Her academic and research interests lie at the intersection of data science, artificial intelligence, medical image analysis, and computer vision. Her work focuses extensively on applying advanced deep learning techniques, particularly generative models such as GANs, to develop solutions for complex problems in medical imaging. One of her primary areas of interest is the automatic segmentation of pediatric brain MRI data using GANs to enhance diagnostic accuracy and clinical outcomes.

Dr. Shaari is also involved in multidisciplinary research projects such as agent-based modeling and automated detection of landmines and explosive remnants of war (ERWs), leveraging AI to address real-world humanitarian and health challenges. These projects highlight her strong commitment to using technology for societal impact.

In addition to her research, she has held several academic leadership roles, including Deputy Dean of the Faculty of Information Technology, Head of the Quality and Performance Assessment Department, and Head of the Internet Technologies Department. Her teaching and mentoring experience spans software engineering, web technologies, and data-driven decision-making. She frequently conducts technical training workshops and has participated in numerous scientific conferences as a reviewer, organizer, and contributor.

Her contributions reflect a strong dedication to both academic excellence and the practical application of research to solve local and global challenges through innovation in AI and information technologies.

EXPERIENCE

Academic Experience

- 04/2025: Associate Professor, Data Sciences & Artificial Intelligence Department, Faculty of Information Technology, University of Tripoli.
- 02/2025: Assistant Professor, Data Sciences & Artificial Intelligence Department, Faculty of Information Technology, University of Tripoli.
- 11/2024: Assistant Professor, Information System Department, Faculty of Information Technology, University of Tripoli.
- 10/2023 to11/2024 :Deputy Dean - Faculty of Information Technology
- 04/2021 to 11/2024 :Assistant Professor, Web Technologies Department, Faculty of Information Technology, University of Tripoli.
- 04/2021 to date :Assistant Professor, Web Technologies Department, Faculty of Information Technology, University of Tripoli. Tripoli, Libya
- 09/2013 to 09/2021 :Lecturer/ Assistant Professor at Software Engineering department, Faculty of Information Technology, Tripoli University, Tripoli.
- 09/2017 to 03-2022 :Head of Quality and Performance Assessment Department- Faculty of Information Technology, University, Tripoli, Libya
- 09/2016 to 09/2017 :Head of Internet Technologies Department – Faculty of Information Technology, University, Tripoli, Libya.09/2017 to date :Research member at Data and Multimedia Lab (D&M Lab) in the Faculty of Information Technology.

Teaching

- Internet programming languages, Java Programming Language, Mobile Application Development, Introduction to Information Technology, User Interface Design, Introduction to 2D Computer Graphics, Software Construction, Software Reuse and Component Based Software Engineering, Web Application Development, AI and ML. Regularly supervise practical courses for undergraduate students and have supervised many undergraduate research projects.

Research Interests

- Hala academic and research interests lie at the intersection of data science, artificial intelligence, medical image analysis, and computer vision. Her work focuses extensively on applying advanced deep learning techniques, particularly generative models such as GANs, to develop solutions for complex problems in medical imaging. One of her primary areas of interest is the automatic segmentation of pediatric brain MRI data using GANs to enhance diagnostic accuracy and clinical outcomes.

External Activities

- Dr. Hala Shaari has actively participated in numerous local and international scientific conferences (IEEE MISTA 2023, MISTA 2024, 3rd IEEE ISACC 2025) serving as a technical committee member and peer reviewer. She has also designed and delivered a wide range of specialized training workshops, reflecting her deep expertise and ongoing commitment to professional development in her field.

AWARDS AND PROMOTIONS

- 04/2025 :Promoted to Associate Professor, Faculty of Information Technology, University, Tripoli, Libya.
- 04/2021 :Promoted to Assistant Professor, Faculty of Information Technology, University, Tripoli, Libya.
- 04/2017 :Promoted to Lecturer, Faculty of Information Technology, University, Tripoli, Libya.

TRAINING COURSES

- 04/2016: 98-375 MTA :HTML5 Application Development Fundamentals Certificate.
- 08/2007 to 06/2008 :English Language courses at Anniesland College in Glasgow, UK.

OTHER EXPERIENCES

- Many papers have been published at high-quality Journals and scientific conferences.
- Teaching, guiding and supervising undergraduate students, developing study programs and curricula, developing and managing research projects in field computer engineering.
- Preparing courses for graduate and undergraduate study programs in the field of Computer science.

PUBLICATIONS

- **Shaari, H.** (2025). Generative Adversarial Networks in Brain Imaging: A Decade-Long Review of Progress and Future Directions. Journal of Pure & Applied Sciences, 24(1), 73–103. https://doi.org/10.51984/jopas.v24i1.3777.
- **Shaari H.** Advancements in Big Data Analytics Tools A Comparative Examination of Performance, Usability, and Applications. ISTJ - International Science and Technology Journal, , 2025,Vol. 1 No. 36, doi: 10.62341/hsab1116.
- **H. Shaari**, J. Kevric and N. Ahmed, "Domain Adaptation Generative Model for Segmenting 3D MRI Pediatric Brain," 2024 IEEE 4th International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering (MI-STA), Tripoli, Libya, 2024, pp. 686-693, doi: 10.1109/MI-STA61267.2024.10599638.
- A. Alaskri, N. A. Salem Ahmed and **H. Shaari**, "Internet of Things (IoT): survey of most important security risks," 2023 IEEE 3rd International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering (MI-STA), Benghazi, Libya, 2023, pp. 295-299, doi: 10.1109/MI-STA57575.2023.10169291.

- **Shaari, H.**, Kevric, J., Saracevic M., and Ahmed, N. (2023). Performance Investigation of Several Convolutional Neural Network Models in Healthcare System: Blockchain Technology Solutions for the Security of IoT-Based Healthcare Systems in Cognitive Data Science in Sustainable Computing Series. Elsevier Science & Technology, ISBN:9780323991995.
- **Shaari, H.**, Kevrić, J., & Jukić, S. (2022). Machine learning algorithms: practical case studies. International Burch University, ISBN - 978-9958-834-72-1. COBISS.BH-ID – 49297926.
- Irtaymah, Hatim Abu, **Hala Shaari**, and Nuredin Ahmed. "Agile Project Management Approaches: A Case Study with Respect to Their Application in Finance Technology Projects." Journal of Pure & Applied Sciences 21.4 (2022): 24-29.
- Dakhila, Safa Salem, Nuredin Ali Salem Ahmed, and **Hala Shaari**. "Comparison of Two Face Recognition Machine Learning Models." Journal of Pure & Applied Sciences 21.4 (2022): 30-34.
- **Shaari H.**, Durmić N., Ahmed N. Modern ABI Platforms for Healthcare Data Processing. In: Ademović N., Mujčić E., Akšamija Z., Kevrić J., Avdaković S., Volić I. (eds) Advanced Technologies, Systems, and Applications VI. IAT 2021. Lecture Notes in Networks and Systems, vol 316. Springer, , Cham.
- **H. Shaari**, J. Kevrić, S. Jukić, L. Bešić, D. Jokić, N. Ahmed, and V. Rajs, "Deep Learning-Based Studies on Pediatric Brain Tumors Imaging: Narrative Review of Techniques and Challenges," Brain Sciences, vol. 11, no. 6, p. 716, May 2021.
- Nuredin Ahmed, **Hala Shaari**, Adel Saad Emhemmed, "Design, Modeling and implementation of Smart grid using PROTEUS and Arduino", 2021 IEEE 1st International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering MI-STA, 25-27 May 2021,Tripoli-Libya, vol. 1, pp. 623-627, 2021.
- Abdelhamid Elwaer, Marwa Solla, Fatima Ben Lashiher, Hassan Ali Hassan Ebrahem, **Hala Shaari** and Rudwan A. Husain, "Applying Multiple Deep Learning Models for Antipersonal Landmines Recognition", Libyan Conference on Automation and Robotics (LCAR 2021), Tripoli-Libya, vol. 1, pp. 35-42, 2021.
- **Hala Shaari** and Nuredin Ahmed, "An Extensive Study on Online and Mobile Ad Fraud", The Third Conference for Engineering Sciences and Technology (CEST2020) ,AL-Khoms, Libya, vol. 3, pp. 223-234, 2020.
- Rudwan A. Husain , **Hala Shaari** , Hassan Ali Hassan Ebrahem and Marwa Solla, "Simulation of Leishmaniasis Epidemiology in Libya Using Agent Based Modelling", 19th International conference on Sciences and Techniques of Automatic control & computer engineering. March 24-26, 2019, Sousse, Tunisia. DOI: 10.1109/STA.2019.8717262, IEEE.
- Rudwan A. Husain , **Hala Shaari** , Marwa Solla and Hassan Ali Hassan Ebrahem , "Agent Based Computing Technique for Epidemiological Disease Modelling", International Conference on Technical Science ICTS 2019. March 4-6 Tripoli, Libya.
- **Hala Shaari** and Nuredin Ahmed, "Improving Performance and Progression of Novice Programmers: Factors Considerations", International Journal of Information and Education Technology vol. 8, no. 1, pp. 7-10, 2018.