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SUMMARY

Rasha Obeidat has been an assistant professor at the Department of Computer Science, Jordan University of Science and Technology, Irbid, Jordan, since 2019. She received her Ph.D. in Computer Science from Oregon State University, Corvallis, OR, in 2019 and her M.S. degree from Jordan University of Science and Technology in 2010. Her general research interests are artificial intelligence, machine learning, deep learning, and Natural language Processing. Much of her work has applied deep learning and machine learning techniques for social media data analytics, medical diagnosis, and urban planning. She has been involved in social media data analytics in several research projects, including fake news and propaganda detection, sentiment analysis and topic modeling. Besides, she is actively improving several NLP tasks for the Arabic text, including Question answering, textual entailment and dialectical Arabic machine translation. She reviewed several manuscripts for highly impacted journals such as PeerJ Computer Science and Machine Learning. Besides, she served as a chair of the big data and data science track in ICICS2023 and co-chair of the NLP track in ICICS2022. She also serves regularly on the program committee for several international Information Technology and Computer Science conferences, such as AAAI, ICICS and ICNLSP.

EDUCATION

- **Ph.D. in Computer Science.** Oregon State University, Corvallis, OR, USA.2019.
- **M.Sc., Computer Science,** Jordan University of Science& Technology, Irbid, Jordan, 2009.
- **B.Sc., Computer Science,** Jordan University of Science & Technology, Irbid, Jordan, 2005.

ACADEMIC HONORS AND AWARDS

- Full scholarship to pursue a Ph.D. degree in computer science at Oregon State University from Jordan University of Science and Technology.
- Ranked first in the national qualification exam among all CS students at JUST graduated in the year 2005.
- Ranked as the top student in the Master of Computer Science program, class of 2009, among all graduates.
- Ranked third in the Bachelor of Computer Science program, class of 2005, among all graduates.
- Deans honor list, Jordan University of Science and Technology, 2002-2005

ACADEMIC /TEACHING EXPERIENCE

Assistant Professor, Department of Computer Science, Jordan University of Science and Technology, Irbid, Jordan, September 2019 - Present

- Teaching Computer Science at the undergraduate and graduate levels including C++ programming, Data structures, Deep Learning.
- Advising Computer Science students on curriculum choices and developing comprehensive advisory course schedules tailored to individual student needs and academic goals.
- Maintain a functional classroom environment.
- Prepare and grade assignments & exams/respond to student e-mails/class lecture.

- Maintain a professional relationship with students and other faculty.
- Advise students on their academic career.
- Participating and coordinating advisory board meetings.

Graduate Teaching and Research Assistantship, School of Electrical Engineering and Computer Science, Corvallis, Oregon, September 2014 to June 2019.

- Assisting in teaching various graduate and undergraduate level course including Machine learning, Probabilistic graphical models, Database systems, and Data Structures.
- Holding lectures, recitations and offices hours.
- Preparing and grading assignments & exams/responding to student e-mails/class lecture.
- Maintaining a professional relationship with students and other faculty.

Full-time Lecturer, Department of Computer Science, Jordan University of Science and Technology, Irbid, Jordan, Feb 2011 to August 2014.

- Teaching Computer Science and Information Computer Systems courses at the undergraduate levels including Data Mining, Information Retrieval, C++ programming, C++ programming Lab, Object Oriented Programming Languages, Object Oriented Programming Languages Lab, C++ for non-computer science students, and Visual Basic for non-computer science students.
- Advising CS students.
- Coordinating courses and attending courses coordination meetings.
- Grading assignments & exams/responding to student e-mails/class lecture.
- Maintaining a professional relationship with students and other faculty.

Part-time Lecturer, Department of Computer Science, Jordan University of Science and Technology, Irbid, Jordan, Feb 2010 to June 2010.

- Teaching Computer Science and Information Computer Systems courses at the undergraduate and graduate levels including C++ programming and Computer skills for non-computer science students (graduate-level)
- Grading assignments & exams/responding to student e-mails/class lecture.
- Maintaining a professional relationship with students and other faculty.

Graduate Teaching Assistant, Department of Computer Science, Jordan University of Science and Technology, Irbid, Jordan 2006 – 2008.

- Grading assignments & quizzes for several Computer Science courses including programming with C++, visual basic Programming, and System Analysis
- Maintaining a professional relationship with students and other faculty.

COURSES TAUGHT

Undergraduate Level

- Data mining
- Data structures
- Information retrieval systems
- Introduction to object- oriented programming
- Introduction to programming
- Object-oriented programming lab
- Programming in c++
- Programming lab
- Selected topics in computer science 2

Graduate Level

- Selected Topics in Computer Science 2 (Deep learning)
- Selected programming languages
- (for on-computer science information students)

RESEARCH INTERESTS

- Natural language Processing and Understanding: Machine Reading Comprehension, Textual Entailment, Information Extraction and
- Natural Language Processing Resources.
- Machine learning for social media Analysis: Misinformation detection, Sentiment Analysis, Detection of Sarcasm, Emotion, and propaganda.
- Artificial Intelligence for Medical Diagnosis
- Artificial Intelligence for Urban planning and design

FUNDED PROJECTS

Ongoing Funded Research Projects

- Arabic Event Extraction: New dataset and Deep Learning approach.
- Exploring Deep Learning Approaches for Sentiment Analysis, Emotion Detection, Topic Classification, and Topic Modeling using Large-scale Manually annotated Multi-dialect Arabic Twitter Dataset related to the Russian-Ukrainian War.
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SUPERVISION OF GRADUATE STUDENTS

Former Students

- **Ms. Marwa Al-Harbi.** Department of Computer Science. Jordan University of Science and Technology. **Thesis title:** *"Deep-Learning Based Model for Arabic Machine Reading Comprehension."*
- **Ms. Yara Al-Harashseh.** Department of Computer Science. Jordan University of Science and Technology. **Thesis title:** *"Arabic Textual Entailment using Deep Learning."*
- **Ms. Maram Al-Garaibeh.** Department of Computer Science. Jordan University of Science and Technology. **Thesis title:** *"Detection of COVID-19 Misinformation in Arabic Tweets."*
- **Ms. Ola Atiti.** Department of Computer Science. Jordan University of Science and Technology. **Thesis title:** *"Detecting propaganda techniques in English and Arabic news articles using deep learning."*
- **Mr. Abdualлах Al-Shorman.** Department of Computer Science. Jordan University of Science and Technology. **Thesis title:** *"Lung Cancer Detection and Classification from Chest CT Scan Images using Deep Learning."*
- **Ms. Seba Al-Garaibeh.** Department of Urban Planning. Jordan University of Science and Technology. **Thesis title:** *Improve the Genetic Algorithm using Ant Colony Optimization to allocate Urban Green Spaces."*
- **Ms. Razan Abdul-Nabi.** Department of Computer Engineering. Jordan University of Science and Technology. **Thesis title:** *"Neural Machine Translation Of Low-Resource Arabic Dialects."*

Current Students

- **Ms. Jumana Khrais.** Department of Computer Science. Jordan University of Science and Technology. **Thesis title:** *"Deep Learning Approaches for Arabic Three-Way Natural Language Inference."*
- **Mr. Mohammad Makahleh.** Department of Computer Science. Jordan University of Science and Technology. **Thesis title:** *"Arabic Reading Comprehension Using Deep-Learning Techniques."*
- **Mr. Zaid Hamdoni.** Department of Applied English. Jordan University of Science and Technology. **Thesis title:** *"A Comparative Generic and Linguistic Analysis of Human-Generated and ChatGPT-Generated Research Abstracts."*

PUBLICATIONS

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- **Obeidat, Rasha**, Maram Gharaibeh, Malak Abdullah, and Yara Alharahsheh. "Multi-label multi-class COVID-19 Arabic Twitter dataset with fine-grained misinformation and situational information annotations." *PeerJ Computer Science* 8 (2022): e1151.
 - **Obeidat, Rasha**, Amjad Bashayreh, and Lojin Bani Younis. "The Impact of Combining Arabic Sarcasm Detection Datasets On The Performance Of BERT-based Model." In *2022 13th International Conference on Information and Communication Systems (ICICS)*, pp. 22-29. IEEE, 2022.
 - **Obeidat, Rasha**, Xiaoli Fern, Hamed Shahbazi, and Prasad Tadepalli. "Description-based zero-shot fine-grained entity typing." In *Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, Volume 1 (Long and Short Papers)*, pp. 807-814. 2019.
 - **Obeidat, Rasha**, Xiaoli Z. Fern, and Prasad Tadepalli. "Label Embedding Approach for Transfer Learning." In *ICBO/BioCreative*. 2016.
 - Al-Harbi, Marwa, **Rasha Obeidat**, Mahmoud Al-Ayyoub, and Luay Alawneh. "Question-aware deep learning model for arabic machine reading comprehension." In *International Conference on Intelligent Systems and Pattern Recognition*, pp. 262-276. Cham: Springer Nature Switzerland, 2023.
 - Gharaibeh, Anne, Abdulrazzaq Shaamala, **Rasha Obeidat**, and Salman Al-Kofahi. "Improving land-use change modeling by integrating ANN with Cellular Automata-Markov Chain model." *Heliyon* 6, no. 9 (2020).
 - Makahleh, Mohammed, **Rasha Obiedat**, and Muhannad Quwaider. "Leveraging Pre-trained Language Models for Arabic Machine Reading Comprehension with Unanswerable questions." *2023 Tenth International Conference on Social Networks Analysis, Management and Security (SNAMS)*. IEEE, 2023.
 - Tashtoush, Yahya, **Rasha Obeidat**, Abdallah Al-Shorman, Omar Darwish, Mohammad A. Al-Ramahi, and Dirar Darweesh. "Enhanced convolutional neural network for non-small cell lung cancer classification." (2023).
 - Alissa, Kefah, Rasha Obeidat, Samer Alqudah, Rami Obeidat, and Qusai Ismail. "Performance Evaluation of CNN-based Transfer Learning for COVID-19 Pneumonia Identification with Various Levels of Layer Partial Freezing." In *2022 International Conference on Engineering & MIS (ICEMIS)*, pp. 1-8. IEEE, 2022.
 - Alharahsheh, Yara, **Rasha Obeidat**, Mahmoud Al-Ayoub, and Maram Gharaibeh. "A survey on textual entailment: Benchmarks, approaches and applications." In *2022 13th International Conference on Information and Communication Systems (ICICS)*, pp. 328-336. IEEE, 2022.
 - Gharaibeh, Maram, **Rasha Obeidat**, Malak Abdullah, and Yara Al-Harashsheh. "Datasets and Approaches of COVID-19 Misinformation Detection: A Survey." In *2022 13th International Conference on Information and Communication Systems (ICICS)*, pp. 337-345. IEEE, 2022.
 - Ismail, Qusai, **Rasha Obeidat**, Kefah Alissa, and Eslam Al-Sobh. "Sentiment analysis of covid-19 vaccination responses from twitter using ensemble learning." In *2022 13th International Conference on Information and Communication Systems (ICICS)*, pp. 321-327. IEEE, 2022.
 - Shahbazi, Hamed, Xiaoli Fern, Reza Ghaeini, Chao Ma, **Rasha Mohammad Obeidat**, and Prasad Tadepalli. "Joint Neural Entity Disambiguation with Output Space Search." In *Proceedings of the 27th International Conference on Computational Linguistics*, pp. 2170-2180. 2018.
 - Shahbazi, Hamed, Xiaoli Z. Fern, Reza Ghaeini, **Rasha Obeidat**, and Prasad Tadepalli. "Entity-aware elmo: Learning contextual entity representation for entity disambiguation." *arXiv preprint arXiv:1908.05762* (2019).
 - Tashtoush, Yahya, Dirar Darweesh, Omar Darwish, Belal Alsinglawi, and **Rasha Obeidat**. "A Classifier to Detect Profit and Non Profit Websites upon Textual Metrics for Security Purposes." *Journal of ICT Research and Applications* 16, no. 1 (2022): 81-91.
 - Abdullah, Malak, Ola Altit, and **Rasha Obiedat**. "Detecting propaganda techniques in english news articles using pre-trained transformers." *2022 13th International Conference on Information and Communication Systems (ICICS)*. IEEE, 2022.
 - Najadat, Hassan, **Rasha Obeidat**, and Ismail Hmeidi. "Clustering Generalised Instances Set Approaches for Text Classification." *Journal of Information & Knowledge Management* 10, no. 01 (2011): 91-107.
 - Al-Shalabi, Riyadh, and **Rasha Obeidat**. "Improving knn Arabic text classification with n-grams based document

indexing." In *Proceedings of the Sixth International Conference on Informatics and Systems, Cairo, Egypt*, pp. 108-112. 2008.

SERVICE TO THE RESEARCH COMMUNITY

Reviewer for Journal/Conference:

- PeerJ Computer Science
- Machine Learning (Journal)
- The 37th AAAI Conference on Artificial Intelligence (AAAI-23)
- International Conference on Information and Communication Systems (ICICS): 2021-2023
- 5th International Conference on Natural Language and Speech Processing (ICNLSP 2022)

Track chair/co-chair Conference:

- Co-chair of the Track of Natural language processing in the International Conference on Information and Communication Systems (ICICS22).
- Chair of the Track of Big Data and Data Science in the International Conference on Information and Communication Systems (ICICS22).

ACADEMIC COMMITTEES

- Member of Artificial Intelligence Program Curriculum establishing.
- Member of CS Dept. for Accreditation Board for ABET committee.
- Member of the Scientific Research committee
- Member of the Graduate studies committee
- Member of the Graduate studies committee
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SKILLS

- Programming language: Python, Java, C++, C#, Visual Basic.
- Excellent knowledge with deep learning frameworks such as Pytorch and Keras and familiarity with TensorFlow.
- Excellent knowledge of Windows, Linux, and MS Office and e-learning systems

COMMUNITY SERVICES

- Motivational lectures for female high-school students in cooperation with Injaz Foundation (USAID-funded program)

LANGUAGES

- Arabic (mother language)
- English (fluent)

REFERENCES

To be provided when required