Dr. saima Jabeen

Saudi Premium Residency (PR) holder

Personal Information

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Profile

Experienced assistant professor specialized in Artificial intelligence, data science, and machine learning with a strong track record of delivering engaging lectures and mentoring students. Skilled in curriculum development, research, and utilizing cutting-edge technologies to enhance teaching and learning.

Areas of Interests: Artificial Intelligence, Data Science, Machine Learning, Natural Language Processing, Data/Text Mining, Databases, Social Network Analysis, Healthcare frameworks, Biomedical applications

Work Experience

09/2023 – present
Riyadh, Saudi Arabia

Research Fellow
AI Research Center, College of Engineering, Alfaisal University

- Serving as a PostDoc Researcher

- Conduct extensive research on diverse topics in Artificial intelligence, data science, and machine learning and synthesized findings into well-structured and comprehensive papers, demonstrating strong analytical and critical thinking.

- Collaborate with a team of researchers and professors to develop compelling research proposals, contributing to successful funding acquisition for various projects.

- Utilize advanced writing and editing techniques to ensure clarity, coherence, and adherence to academic standards in all written assignments

- Implement effective time management strategies to meet strict deadlines, successfully managing multiple simultaneous projects while maintaining a high level of quality and attention to detail.

- Conduct and coordinate AI seminars.

02/2020 – 08/2023
Haripur, Pakistan

Assistant Professor | Head of Dept. IT&CS | Head of Data Science
Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology

- Provided instruction for undergraduate and graduate courses, ensuring a comprehensive understanding of subject.
- Oversaw the successful completion of Final Year Projects (FYPs) and Thesis, offering guidance and support to students.
- Pioneered the establishment of the Department of IT and CS as 1st Head of the Department, including the establishment of departmental labs.
- Spearheaded the launch of four Bachelor of Science programs (Artificial Intelligence, Data Science, Software Engineering, and Computer Science) and one Master of Science program (Data Science).
- Directed the Data Science Program as Head of this program, ensuring its effective execution and relevance to industry demands.
- Contributed as a member of numerous committees at both departmental and institutional levels, actively participating in decision-making processes.

09/2017 – 01/2020 Wah Cantt., Pakistan	**Assistant Professor | Chairperson: Department of Computer Science** **University of Wah** • Served as Chairperson of the Department of Computer Science, overseeing departmental operations and strategic initiatives. • Successfully coordinated departmental activities, ensuring efficient communication and collaboration among faculty members and staff. • Delivered engaging and informative instruction to both undergraduate and graduate students enrolled in Computer Science programs. • Provided guidance and supervision to students for their Final Year Projects (FYPs) and Thesis, fostering their research and academic development. • Actively contributed as a member of various departmental and institutional statutory committees, actively shaping policies and decisions. • Served as the Editor of the UW Journal of Computer Science, maintaining high editorial standards and facilitating the publication of quality research articles.
09/2015 – 08/2016 Riyadh, Saudi Arabia	**Assistant Professor** **Prince Sultan University** • Instructed courses in computer science and software engineering at both the undergraduate and graduate levels, • guided students in their thesis projects, and • actively participated in some departmental and institutional committees.
08/2014 – 06/2015 Swabi, Pakistan	**Assistant Professor** **Ghulam Ishaq Khan Institute of Engineering Sciences and Technology** • Taught courses to the BS in Computer Science program • provided guidance and supervision for final year projects, and • contributed to some departmental committees.

Education

11/2009 – 03/2014 Torino, Italy	**PhD in Computer and Control Engineering** **Politecnico di Torino** Artificial Intelligence, Data Science, Machine Learning, Natural Language Processing, Social Network Analysis, Data Mining, Text Mining, Databases
09/2004 – 05/2007 Peshawar, Pakistan	**Master of Science in Computer Science** **University of Peshawar** Programming, Object-Oriented Programming, Operating System, Networking, Data Structures and Algorithms, Database management systems, Compiler Construction, Automata Theory, Software Engineering, Web Engineering
07/2002 – 08/2004 Mansehra, Pakistan	**Bachelor of Science** **Hazara University** Computer Science: Data Structures, Programming, C++, Operating System, Communication and Networking, Maths-A, Maths-B

Professional Training

03/2021 – 06/2021	**"Fachhochschule Teaching and Management"** **FH| Joanneum, & MCI| School of Entrepreneurship,** Graz & Innsbruck, Austria, Obtained a a rigorous executive training program on strategic management and teaching Universities of Applied Sciences aka Fachhochschule across Europe.
01/11/2023 – 14/12/2023	**"GENERAL COURSE ON INTELLECTUAL PROPERTY" by WIPO ACADEMY**
18/01/2024	**"Research Bioethics"** via the National Committee of Bioethics (NCBE) at King Abdulaziz City for Sciene and Technology (KACST)

Research Projects – As Research Fellow

05/09/2023	**MRI2CT: Cutting-Edge Synthetic CT Generation based MRI-only for Precision Radiation Oncology**: President Innovation Fund (PIF), 24 Months, SR 500,000
05/09/2023	**Synthetic CT in Radiation Therapy for Patients with Motor Disabilities** King Salman Centre For Disability Research (KSCDR) & King Faisal Specialist Hospital and Research Centre (KFSHRC), 12 Months, SR 200,000

Honors & Awards

07/03/2024	**Top First-Timer Team Winner for 2024 WiDS Datathon Challenge #1**: Issued by Women in Data Science Worldwide (WiDS) · Mar 2024
10/2009 – 03/2014 Torino, Italy	**Scholarship award for PhD** Higher Education Commission, Pakistan Won scholarship to pursue my PhD studies from Politecnico di Torino, Torino, Italy
05/2016 Riyadh, Saudi Arabia	**Certificate of Appreciation for Efficiently using LMS (Moodle)** **Prince Sultan University** Won 3rd position to make efficient use of Students' LMS (Moodle) for sharing course content and related academic activities for the taught courses.
08/2004 Haripur, Pakistan	**Merit Certificate for securing one of top positions in University** **Hazara University, Mansehra** Achieved merit certificate in BSc. for securing 4th in the Hazara university while 3rd position in its affiliated College GGDC.

Taught Courses to BS and MS Programs

Taught courses to BS Data Science, AI, SE and CS
* Artificial Intelligence
* Data Mining
* Introduction to Data Science
* Data warehousing
* Database systems
* Object Oriented Programming
* Introduction to Computing
* Data Structures and Algorithms
* Operating Systems
* Compiler Construction
* Automata Theory
* Software Requirements Engineering
* Human Computer Interaction
* MIS and Decision Support System

Taught courses to MS Data Science and MS SE
* Tools and Techniques in Data Science
* Machine Learning for Data Science
* Advanced Data Mining and Machine Learning
* Software Engineering with HCI
* Software Requirements Engineering

Skills

- **LANGUAGES**
English – **Proficient (PTE),**   Hindko – **Native**
Urdu–**Full**   **Punjabi** – **Full**

- **COMPUTER SKILLS**

Python	Java	C++	MySQL
Professional	**Professional**	**Professional**	**Professional**
SQL Server	DBMS	WEKA	Latex
Professional	**Professional**	**Professional**	**Professional**
Data Analysis	EDA	Data Scientist	Predictive Analytics
Professional	**Professional**	**Professional**	**Professional**

Professional Development Activities

- Ambassador 2024 for Women in Data Science (WiDS) worldwide, Riyadh, Saudi Arabia

- Co-organizer Women in Data Science (WiDS) Riyadh Datathon 2024

- Speaker/ Panelist: Digital Transformation and Its Impact on Women: at Atlantic Council EmpowerMe Initiatives x Women in Business Committee Workshop

- Session Chair: 3rd IEEE International Conference on Computing and Machine Learning (ICMI-2024)

- Guest lecture in the Master's course: Advanced AI, Alfaisal University, March 12, 2024

- Judging in the 15 Annual Research Day Student Poster Competition

- Conducted Workshop - Exploratory Session for the Dataset

- Delivered Seminar-2: AI for Social Good – A practical framework of ML

- Delivered Research Seminar: Human Subjects in Engineering Research

- Delivered a Seminar on Effective Teaching Strategies, University of Wah

- Reviewer of the Journal: IEEE Transactions on Vehicular Technology
Reviewer of the 5th International Conference on Cognitive Computing and Information Processing (CCIP 2023), JSS STU, Mysuru, India, 15th - 16th December 2023

- Editorial Board Member: Journal: Science, Technology & Public Policy
Former-Associate Editor: UWJCS

- Member of the Association for Computing Machinery (ACM)

- Vice Chair of ACM SIGAccess chapter, Alfaisal University

Publications

1. Mohamed A. Bahloul MA, Saima Jabeen, Sara Benoumhani, Habib A. Alsaleh, Zehor Belkhatir, Areej Al-Wabil. **Advancements in synthetic CT generation from MRI: A review of techniques, and trends in radiation therapy planning.** J Appl Clin Med Phys. 2024 Sep 26: e14499. doi: 10.1002/acm2.14499. Epub ahead of print. PMID: 39325781.

2. Sara Benoumhani, Saima Jabeen, Mariam AlEissa. **Machine learning-driven polygenic risk scores for bipolar disorder, depression, and panic disorder.** Edelweiss Applied Science and Technology. 8. 1758-1773. 10.55214/25768484.v8i6.2338 (Oct. 15, 2024).

3. Norah AlSahly, Areej Al-Wabil, Niddal Imam, Saima Jabeen. **Misinformation about COVID-19 Vaccine and Sentiment Analysis for Related Arabic Tweets using Machine Learning Algorithms.** Edelweiss Applied Science and Technology (ISSN: 2576- 8484), Vol. 9 No.1 (2025). [Accepted]

4. Aslam, Irum & Shah, Sajid & Jabeen, Saima & Elaffendi, Mohammed & Latif, Asmaa & Haq, Nuhman & Ali, Gauhar. **A CNN based m5c RNA methylation predictor. Scientific Reports.** 13. 10.1038/s41598-023-48751-9, 12/2023

5. Attique, H., Shah, S., Jabeen, S., Khan, F.G., Khan, A., ElAffendi, **M., "Multiclass cancer prediction based on Copy Number Variation using Deep Learning",** *Comput Intell Neurosci,* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9203194/, 06/2022

6. Shah, S., Rahman, A., Jabeen, S., Khan, A., Jadoon, F., El-Affendi, M., **"DNA methylation prediction using reduced features obtained via Gappy Pair Kernel and Partial Least Square",** *IEEE Access,* https://ieeexplore.ieee.org/document/9772620, 11/05/2022

7. Amin, J., Anjum, M. A., Sharif, M., Jabeen, S., Kadry, S., Ger, P.M., **"A New Model for Brain Tumor Detection Using Ensemble Transfer Learning and Quantum Variational Classifier",** *Computational intelligence and neuroscience,* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9023211/, 04/2022

8. Syed, L., Alsaeedi, A., Jabeen, S., Kolivand, H., **"Ambient Assisted Living Framework for Elderly Care using Internet of Medical Things, Smart Sensors, and GRU Deep Learning Techniques",** *Journal of Ambient Intelligence and Smart Environments,* https://dl.acm.org/doi/abs/10.3233/AIS-210162, 01/2022

9. Naseem, R., Khan, B., Ahmad, A., Almogren, A., Jabeen, S., Hayat, B., Shah, M. A., **"Investigating Tree Family Machine Learning Techniques for a Predictive System to Unveil Software Defects",** *Complexity,* https://www.hindawi.com/journals/complexity/2020/6688075/, 30/11/2020

10. Syed, L., Jabeen, S., Manimala S., Alsaeedi, A., **"Smart healthcare framework for ambient assisted living using IoMT and big data analytics techniques",** *Future Generation Computer Systems,* https://www.sciencedirect.com/science/article/abs/pii/S0167739X18321071, 06/2019

11. Khan, A., Shah, S., Wahid, F., Khan, F. G., Jabeen, **S., "MicroRNA precursors identification using reduced hybrid features",** *Molecular Biosystems,* https://pubs.rsc.org/en/content/articlelanding/2017/mb/c7mb00115k, 25/07/2017

12. Imran, M., Hlavacs, H., Khan, F. A., Jabeen, S., Khan, F. G., Shah, S., Alharbi,M., **"Aggregated provenance and its implications in clouds", In: Future Generation Computer Systems,** *Future Generation Computer Systems,* https://dblp.org/rec/journals/fgcs/ImranHKJKSA18.html, 01/04/2018

13. Baralis, E., Cagliero, L., Fiori, A., Jabeen, S., and Shah, S., **"Multi-document summarization based on the Yago ontology",** *Expert Systems with Applications,* https://www.sciencedirect.com/science/article/abs/pii/S0957417413004429, 01/12/2013

14. Jabeen, S., Fiori, A., **Document Analysis by means of Data Mining Techniques**, *Lambert Academic Publishing,* https://www.amazon.com/Document-analysis-means-mining-techniques/dp/3659716871, 06/2015

15. Baralis, E., Cagliero, L., Jabeen, S., Fiori, A., and Shah, S., **"Combining semantics and social knowledge for news article summarization"**, *IGI Global Publishing,* https://www.igi-global.com/chapter/combining-semantics-and-social-knowledge-for-news-article-summarization/109984, 01/01/2014

16. Baralis, E., Cagliero, L., Fiori, A., and Jabeen, S., **"Multi-document summarization exploiting frequent itemsets"**, *SAC '12: Proceedings of the 27th Annual ACM Symposium on Applied Computing,* https://dl.acm.org/doi/10.1145/2245276.2245427, 26/03/2012

17. Baralis, E., Cagliero, L., Fiori, A., and Jabeen, S., **"PatTexSum: A pattern-based text summarizer"**, *Conference: Proceedings of The Workshop on Mining Complex Patterns,* https://www.researchgate.net/publication/236852771_PatTexSum_A_pattern-based_text_summarizer, 01/01/2011

18. Jabeen, S., Shah, S., and Latif, A., **"Named Entity Recognition and Normalization in Tweets Towards Text Summarization"**, *IEEE,* https://ieeexplore.ieee.org/document/6694007, 10/09/2013

19. Syed L., Jabeen S., Manimala S., **"Telemammography: A Novel Approach for Early Detection of Breast Cancer Through Wavelets Based Image Processing and Machine Learning Techniques"**, *Springer,* https://link.springer.com/chapter/10.1007/978-3-319-63754-9_8, 15/10/2017

20. Syed, L., Jabeen, S., Manimala, S., Hoda, **A. E.**, **"Data Science Algorithms and Techniques for Smart Healthcare Using IoT and Big Data Analytics: Towards Smarter Algorithms"**, *Springer,* https://link.springer.com/chapter/10.1007/978-3-030-03131-2_11, 01/01/2019

21. Jabeen, F., Khan, F. G., Shah, S., Ahmad, B., Jabeen, **S.**, **"Exploration of Epidemic Outbreaks using Machine and Deep Learning Techniques"**, *Springer,* https://link.springer.com/chapter/10.1007/978-3-031-21101-0_23, 12/03/2023

22. Qureshi F, Khan M, Jabeen S, Shah S. **"Exploring Blockchain Transaction Patterns Using Graph-Based Visualization"**, **In: The 2nd International Conference on Cybersecurity, Cybercrimes, and Smart Emerging Technologies (CCSET2023)**, **05/12/2023**

References

1. **Dr. Fiaz Gul Khan**
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