

Awais Ahmed

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Summary

- I am a Ph.D. Scholar at the University of Electronic Science and Technology of China (UESTC), Concurrently, I am on study leave from my role as a Lecturer at Muhammad Ali Jinnah University, Karachi. Previously, I worked at NUCES-FAST as a Research Associate and Instructor. My fields of interest include Big Data, Healthcare, Multimodal Data, Data Science, ML and NLP. I have a total of 18 publications, including 5 as first author. All of the publications are in representative venues, including WoS-Q₁, Q₂ Journals, and CORE/EI index Conferences. I am enthusiastic about collaborative work and thrive on partnering with like-minded individuals to achieve shared goals.

Employment History

- 2019 – ■ **Lecturer** Department of Computer Science, Muhammad Ali Jinnah University
- 2016 – 2019 ■ **R/A and Instructor** Department of Computer Science, National University of Computer & Emerging Sciences.

Education

- 2020 – ■ **Ph.D. Computer Science** University of Electronic Science and Technology of China
Thesis title: *BIG DATA MULTI-MODAL HEALTHCARE INFORMATICS*
- 2016 – 2019 ■ **MS(CS). Computer Science** National University of Computer & Emerging Sciences
Thesis title: *Live Anomaly Detection based on Machine Learning Techniques : SAD-F: Spark Based Anomaly Detection Framework.*
- 2012 – 2016 ■ **BS(CS). Computer Science** National University of Computer & Emerging Sciences
Thesis title: *STRAX: Smart Transaction using Remote Deposit Capture.*

Research Publications

Journal Articles

- 1 A. Ahmed, X. Zeng, R. Xi, M. Hou, and S. A. Shah, "Med-prompt: A novel prompt engineering framework for medicine prediction on free-text clinical notes," *Journal of King Saud University-Computer and Information Sciences*, p. 101 933, 2024.
- 2 M. H. Tunio, J. P. Li, X. Zeng, *et al.*, "Meta-knowledge guided bayesian optimization framework for robust crop yield estimation," *Journal of King Saud University-Computer and Information Sciences*, vol. 36, no. 1, p. 101 895, 2024.
- 3 A. Ahmed, R. Xi, M. Hou, S. A. Shah, and S. Hameed, "Harnessing big data analytics for healthcare: A comprehensive review of frameworks, implications, applications, and impacts," *IEEE Access*, 2023.
- 4 J. Bhayo, S. A. Shah, S. Hameed, A. Ahmed, J. Nasir, and D. Draheim, "Towards a machine learning-based framework for ddos attack detection in software-defined iot (sd-iot) networks," *Engineering Applications of Artificial Intelligence*, vol. 123, p. 106 432, 2023.
- 5 C. Yan, X. Zeng, R. Xi, A. Ahmed, M. Hou, and M. H. Tunio, "Pla—a privacy-embedded lightweight and efficient automated breast cancer accurate diagnosis framework for the internet of medical things," *Electronics*, vol. 12, no. 24, p. 4923, 2023.

- 6 J. Bhayo, R. Jafaq, A. Ahmed, S. Hameed, and S. A. Shah, "A time-efficient approach toward ddos attack detection in iot network using sdn," *IEEE Internet of Things Journal*, vol. 9, no. 5, pp. 3612–3630, 2021.
- 7 A. Ahmed, S. Hameed, M. Rafi, and Q. K. A. Mirza, "An intelligent and time-efficient ddos identification framework for real-time enterprise networks: Sad-f: Spark based anomaly detection framework," *IEEE Access*, vol. 8, pp. 219 483–219 502, 2020.
- 8 A. Ahmed, A. Aziz, and M. Muneeb, "Electronic payment system: A complete guide," *Journal of Multidisciplinary Sciences*, vol. 1, no. 2, pp. 1–17, 2019.

Conference Proceedings

- 1 A. Ahmed, Z. Xiaoyang, M. H. Tunio, *et al.*, "Occnet: Improving imbalanced multi-centred ovarian cancer subtype classification in whole slide images," in *2023 20th International Computer Conference on Wavelet Active Media Technology and Information Processing (ICCWAMTIP)*, IEEE, 2023, pp. 1–8.
- 2 M. H. F. Butt, J. P. Li, M. A. F. Butt, M. Ahmad, M. H. Tunio, and A. Ahmed, "Mitigating hughes phenomenon: Improving hyperspectral imaging classification through active learning for generalization enhancement," in *2023 20th International Computer Conference on Wavelet Active Media Technology and Information Processing (ICCWAMTIP)*, IEEE, 2023, pp. 1–8.
- 3 Y. Chengxiao, Z. Xiaoyang, A. Ahmed, M. H. Tunio, and F. Shuhuan, "Diffusion-enhanced magnified histopathological images for robust breast cancer classification," in *2023 20th International Computer Conference on Wavelet Active Media Technology and Information Processing (ICCWAMTIP)*, IEEE, 2023, pp. 1–7.
- 4 S. A. Shah, E. A. Arputham, A. Ahmed, M. B. Farah, A. Shah, and A. Aziz, "Sorting the digital stream: Big data-driven insights into email classification for spam and ham detection," in *2023 IEEE International Conference on Big Data (BigData)*, IEEE, 2023, pp. 5598–5607.
- 5 S. A. Shah, X. Zeng, A. Ahmed, S. Parvez, R. Xi, and M. Hou, "Multi-instance bias suppression for enhanced generalization in breast cancer diagnosis: Harnessing histopathological big data insights," in *2023 IEEE International Conference on Big Data (BigData)*, IEEE, 2023, pp. 857–864.
- 6 X. Zeng, A. Ahmed, M. H. Tunio, Y. Chengxiao, M. Hou, and R. Xi, "Subgroup-adaptive network for robust virtual patient-specific quality assurance," in *2023 20th International Computer Conference on Wavelet Active Media Technology and Information Processing (ICCWAMTIP)*, IEEE, 2023, pp. 1–6.
- 7 H. Umer, A. Ahmed, F. Ali, S. S. Ali, and M. A. Khan, "A systematic literature review on smart waste management using machine learning," in *2022 Mohammad Ali Jinnah University International Conference on Computing (MAJICC)*, IEEE, 2022, pp. 1–9.

Skills

Languages	Strong reading, writing, and speaking competencies in English, Urdu, and Sindhi.
Coding	Python, C, C++, \LaTeX , Mendeley, ...
Data Science Tools	Weka, Hadoop, Spark, ...
Network's Tools	Cisco, Wireshark, GNS3
Academic.	Scientific research, teaching, training, consultation, \LaTeX typesetting, and publishing.

Miscellaneous Experience

Awards and Achievements

- 2020-2024  **Ph.D. CSC, Scholarship – UESTC, China**
 Ph.D. - Professor Scholarship at Korea Aerospace University (due to COVID-19, unable to join)
- 2016-2019  Graduate (MScS) Merit Scholarship awarded by FAST – NUCES, Karachi
 Undergraduate (BSCS), Fully Bright Scholarship, Ministry of IT, Pakistan

Academic Volunteer Services

- October 2023 - Present  **Reviewer, Springer Applied Intelligence**
 **Reviewer, International journal of Image and Graphics**
- 2023  Reviewer, IEEE FMEC Conference
- 2021, 2022  Reviewer, IEEE MAJICC'22-Conference
- 2021  Session Manager, IEEE MAJICC'21-Conference
- 2022  Secretary, IEEE MAJICC'22-Conference
- 2021  Reviewer, IEEE ICE Cube Conference

References

Prof. Dr. Hou Mengshu	PhD Supervisor School of Computer Science and Engineering, University of Electronic Science and Technology of China School of Big Data and Artificial Intelligence, Chengdu Technological University	mshou@uestc.edu.cn
Dr. Xi Rui	Research Mentor Researcher, Computer Science, University of Electronic Science and Technology of China	ruiX.ryan@gmail.com
Dr. Syed Attique Shah	Research Mentor Lecturer, Computer Science, Birmingham City University, United Kingdom	syedattique.shah@bcu.ac.uk
Prof. Dr. Sufian Hameed	MS Supervisor Professor, Department of Computer Science, FAST – NUCES, Karachi	sufian.hameed@nu.edu.pk