Muhammad HAROON SHAKEEL
Natural Language Processing | Machine/Deep Learning | Big Data Analytics | Artificial Intelligence

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📍 LUMS, Lahore, Pakistan   i Born on November 21, 1987 in Pakistan

Muhammad Haroon Shakeel is P.hD. scholar, specializing in the area of Deep Learning for Natural Language Processing. He is also involved in multiple projects of Computer Vision and Big Data Analytics. He has authored 8 research publications in reputable journals and conferences. He has 8 years of experience in research and academia. His main research topics include NLP for under-resourced informal languages, language independent NLP, efficient data analytic, and artificial intelligence.

🎓 EDUCATION

2020   **Ph.D. Computer Science** | Lahore University of Management Sciences (LUMS), Lahore)
Natural Language Processing, Deep Learning, Computer Vision, Machine Learning, Neural Networks, Big Data Analytics, Human-centered Computing, and Data Mining

2014   **MS Computer Science** | COMSATS Institute of Information Technology, Islamabad)
Natural Language Processing, Machine Learning, Neural Networks, and Artificial Intelligence

2011   **BBA-ITM (Business and IT Major)** | International Islamic University, Islamabad)
Computer Networks, Operating Systems, Algorithms Design and Analysis, Programming, Web Development, Accounting, Finance, Marketing, Probability, and Brand Management

📄 PUBLICATIONS

Published

8. **Muhammad Haroon Shakeel**, Asim Karim, Imdadullah Khan, *"A Multi-cascaded Model with Data Augmentation for Enhanced Paraphrase Detection in Short Texts"*, Information Processing and Management (IPM), Volume 57, Issue 3, 2020.

7. **Muhammad Haroon Shakeel**, Asim Karim, *"Adapting Deep Learning for Sentiment Classification of Code-Switched Informal Short Text"*, 35th ACM/SIGAPP Symposium on Applied Computing (ACM-SAC), April 2020. (Accepted)

6. **Muhammad Haroon Shakeel**, Safi Faizullah, Turki Alghamidi, Imdadullah Khan, *"Language Independent Sentiment Analysis"*, IEEE International Conference on Advances in the Emerging Computing Technologies (AECT), April 2020. (Accepted)

5. **Muhammad Haroon Shakeel**, Asim Karim, Imdadullah Khan, *"A multi-cascaded deep model for bilingual SMS classification"*, 26th International Conference on Neural Information Processing (ICONIP), December 2019.

4. Waseem Abbas, **Muhammad Haroon Shakeel**, Numan Khurshid, Murtaza Taj, *"Patch-based Generative Adversarial Network Towards Retinal Vessel Segmentation"*, 26th International Conference on Neural Information Processing (ICONIP), December 2019.

3. Sudha Subramani, Sandra Michalska, Hua Wang, Jiahua Du, Yanchun Zhang, **Haroon Shakeel**, *"Deep Learning for Multi-class Identification from Domestic Violence Online Posts"*, IEEE Access 7, pp. 46210-46224, January 2019.

2. Waseem Abbas, Numan Khurshid, **Muhammad Haroon Shakeel**, *"Medical Image Compression Using DDCT, Ripplet Transform and SPIHT"*, International Journal of Scientific and Engineering Research (IJSER) 9 (6), June 2018.

1. Muhammad Arif, **Haroon Shakeel**, *"Virtualization security : analysis and open challenges"*, International Journal of Hybrid Information Technology (IJHIT) 8 (2), pp. 237-246, 2015.

Under Review

2. Sarwan Ali, **Muhammad Haroon Shakeel**, Imdadullah Khan, Safiullah Faizullah, Muhammad Asad Khan, *"Predicting Attributes of Nodes Using Network Structure"*, ACM Transaction on Intelligent Systems and Technology (ACM-TIST).

1. Muhammad Ahmad, **Muhammad Haroon Shakeel**, Sarwan Ali, Imdadullah Khan, Arif Zaman, Asim Karim, *"Efficient Data Analytics on Augmented Similarity Triplets"*, The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD) - Journal Track.

💼 Academic and Research Experience

September 2015 — Present

Graduate Research Assistant, Knowledge and Data Engineering (KADE) Lab, LUMS

> Worked on research project involving Natural Language Processing through Deep Learning for under-resourced and code-switched languages.
> Developed and made publicly available two large-scale datasets for multiclass classification of bilingual text and sentiment analysis of code-switched informal short text.
> Developed Deep Learning models and achieved state-of-the-art for the problems of paraphrase identification of short text in English languages.
> Collaborated internationally on the projects involving domestic abuse detection.
> Mentored junior researchers and graduate students in multiple research projects.

Python | Keras | Tensorflow | Pytorch | Caffe | RapidMiner | Pandas | Numpy | Matplotlib | Data Analytics | LaTeX

Sep 2019 — Dec 2019

Teaching Assistant, Topics in Data Mining, LUMS

> Took part in designing the research course and identified current state of the art research in Data Mining and Deep Learning.
> Mentored multiple research projects as part of the course.

Image Segmentation | User Profiling | Intelligent Crowd Source Annotations | Cross-view Image Retrieval

Sep 2017 — Dec 2017

Teaching Assistant, Machine Learning, LUMS

> Took part in designing the graduate level course.
> Developed theoretical and practical assignments
> Delivered multiple lectures

Feb 2017 — May 2017

Teaching Assistant, Introduction to Data Mining, LUMS

> Took part in designing the undergraduate level course.
> Developed theoretical and practical assignments
> Delivered multiple lectures

📶 Seminars and Posters

2020 Adapting Deep Learning for Code-switched Under-resourced Language (Poster Session, Adisory Board Meeting, Lahore University of Management Sciences (LUMS, Lahore))

2019 Patch-based Generative Adversarial Network Towards Retinal Vessel Segmentation (Poster Session, International Conference on Neural Information Processing (Sydney, Australia))

2019 Challenges in Informal Text Analytics (Poster Session, Adisory Board Meeting, Lahore University of Management Sciences (LUMS, Lahore))

2018 Graph-based Data Augmentation for Paraphrase Identification of Online Questions (Poster Session, SBASSE Workshop on Big Data and Cloud Computing (BigC 2018))

2018 Deep Learning & Machine Learning for Natural Language Processing (Lahore University of Management Sciences (LUMS, Lahore))

👥 Volunteer Work

> Volunteer coverage member under LUMS Photography Society social responsibility program (2018). The program was aimed to provide free photography services to under-privileged social classes.
> Volunteer for Hum-Aahang society of LUMS. Hum-Aahang is a student-led and LUMS-based initiative dedicated to anti-extremism, inter-faith harmony, the celebration of diversity, dialogue and peace-building.
> Volunteer for workshop and training on integrated Accessible LaTeX-based Authoring and Presentation (ALAP) software for people with visual impairments. ALAP provides advanced math-to-speech and basic math-to-Braille capabilities.

💬 References

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