MUHAMMAD **ARSLAN** MANZOOR

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LinkedIn: LinkedIn portfolio

EDUCATION

Philosophy of Doctorate, Natural Language Processing   August 2021 – May 2025
Mohamed Bin Zayed University of Artificial Intelligence (MBZUAI), Abu Dhabi, UAE   *CGPA 3.82/4.00*

- Research student, supervised by Prof. Preslav Nakov and Dr. Shangsong Liang
- Research: "Efficiently leveraging Graph Neural Networks (GNNs) to learn the graphical media landscape for effective news media profiling"
- Major courses: Natural Language Processing, Speech Processing, Data Mining

Master of Science, Computer Science and Artificial Intelligence   Sept. 2017 – June 2020
Nanjing University of Science and Technology (NJUST), Nanjing, China   *CGPA 3.54/4.00*

- Graduate research student supervised by Prof. Jianfeng Lu
- MS Research: "Effective use of Language Models, specifically Transformers and BERT for sentiment analysis of low resource code-switched social media text"
- Major courses: Artificial Intelligence, Computer Vision, Machine Learning, Distributed Data

Bachelor of Science, Information Technology   Oct. 2013 – May 2017
Department of Computer Science,   *CGPA 3.45/4.00*
University of & Agriculture, Faisalabad (UAF), Pakistan

- Undergraduate student supervised by Dr. Muhammad Shabbir Abbasi

RESEARCH INTERESTS

- Profiling mainstream media for early detection of factuality and political bias within graphical landscapes
- Enhancing the GNNs to alleviate the structural and labels sparsity challenges of huge media graphs
- Enhancing the factuality of Large Language Models through Decoding and Fine-tuning techniques
- Multi-modal learning for natural language understanding and generation task

PUBLICATIONS

Can Machines Resonate with Humans? Evaluating the Emotional and Empathic Comprehension of LMs (Paper) *(sub. ARR-2024)*
Muhammad Arslan Manzoor, *Yuxia Wang, Minghan Wang, Preslav Nakov*

MGM: Global Understanding of Audience Overlap Graphs for Predicting the Factuality / Bias of News Media   *(sub. ARR-2024)*
Muhammad Arslan Manzoor, *Ruihong Zeng, Preslav Nakov, Shangsong Liang*

A Survey on Predicting the Factuality and the Bias of News Media   *(ACL-2024)*
Preslav Nakov, Jisun An, Haewoon Kwak, **Muhammad Arslan Manzoor**, *Zain Muhammad Mujahid, Husrev Taha Sencar*

Factuality of Large Language Models in the Year 2024 (Paper)   *(sub. ARR-2024)*
Yuxia Wang, Minghan Wang, **Muhammad Arslan Manzoor**, *Fei Liu, Georgi Georgiev, Rocktim Jyoti Das, Preslav Nakov*

FRAPPE: FRAming, Persuasion, and Propaganda Explorer   *(EACL Demo-2023)*
Ahmed Sajwani et al.

Multimodality Representation Learning: A Survey on Evolution, Pretraining and Its Applications (Paper)   *(ACM-2023)*
Muhammad Arslan Manzoor, *Sarah Albarri, Ziting Xian, Zaiqiao Meng, Preslav Nakov, Shangsong Liang*

Contrastive Self-Supervised Learning: A Survey on Different Architectures (Paper)   *(ICAI-2022)*
Adnan Khan, Sarah Albarri, **Muhammad Arslan Manzoor**

Lexical Variation and Sentiment Analysis of Roman Urdu Sentences with Deep Neural Networks (Paper)   *(IJACSA-2020)*
Muhammad Arslan Manzoor, *Saqib Mamoon, Son Kei, Ali Zakir, Muhammad Adil, Jianfeng Lu*

SPSSNet: a real-time network for image semantic segmentation (Paper)   *(ITEE-2020)*
Saqib Mamoon, **Muhammad Arslan Manzoor**, *Faen Zhang, Zakir Ali, Jianfeng Lu*

Multi Scale-Adaptive Super-Resolution Person Re-Identification Using GAN (Paper)   *(IEEE Access-2020)*
Muhammad Adil, Saqib Mamoon, Ali Zakir, **Muhammad Arslan Manzoor**, *Zhichao Lian*

EXPERIENCE

PhD Researcher
Dec 2021 – Present

Department of Natural Language Processing, MBZUAI, Abu Dhabi, UAE
Main research topics: Media Profiling, News Media Graphs, Graph Neural Networks, Multimodal Learning

- Enhancing the GNNs to alleviate the structural and labels sparsity challenges of huge media graphs
- Profiling mainstream News Media at outlest level through graphical composition to detect factuality and bias

Research Officer
Nov 2020 – July 2021

Centre of Language Engineering, Al-Khwarizmi Institute of Computer Science, UET, Lahore, Pakistan
Main research topics: Conversational AI, Urdu Chatbot, Low resource language understanding

- Wroked on open-source RASA framwork to build the AI based Urdu language Chatbot / Voicebot
- Collected, preprocessed and annotated real conversational stories to train NLU / NLP module for Urdu Chat/Voice Bot

Research Assistant (Remote)
July 2020 – July 2021

Umm Al Qura University, Mecca, Saudi Arabia
Main research topics: Conversational AI, Language Models

- Assistant to Professor Anas Basalamah, working on AI conversational Projects
- Investigating deep learning model for natural language understanding and paraphrasing tasks

Graduate Research Assistant
Aug 2018 – July 2020

School of Computer Science and Engineering, Nanjing University of Sci. and Tech., Nanjing, China
Main research topics: Deep Neural Networks, Language Models, Transformers

- Explored LMs (Language Models) for the sentiment analysis of low resource code switch data on social media
- Collaborated with colleagues to leverage CNNs for semantic segmentaion and Person re-identification tasks

TECHNICAL SKILLS

Languages: Python, C++/C#, SQL, PHP, HTML/CSS, JavaScript
Frameworks: PyTorch, Keras, Hugging-face, Latex, NLTK, Scikit-learn
Tools: Linux, PyCharm, VS code, Git, Amazon Cloud Platform

SUMMER SCHOOLS / INTERNSHIPS

- Attended Summer Program 2019 for Future Smart City in Shanghai Jiao Tong University
- Completed a 10-week Chinese language course at Nanjing University, China
- IT Intern at Pakistan Telecommunication Landline (PTCL), Faisalabad, Pakistan
- Completed a Deep Learning Course for Image and Natural Language Processing from deeplearning.ai.
- Completed a Web Development Course covering front-end, back-end, and frame-based development

HONOURS AND AWARDS

- Fully funded PhD scholarship holder at MBZUAI, Abu dhabi
- Fully funded Masters scholarship holder from Chines Scholarship Council
- Undergraduate merit based scholarship holder
- Award holder from Chief Minister of Government of Pakistan
- Elite Scholarship holder in High school

ACADEMIC SERVICES

- Served as a reviewer at TOIS-2023, AACL-2023
- Served as a mentor to UGRIP internship program for NLP-01,02 projects at MBZUAI
- Served as volunteer at EMNLP 2022 Abu Dhabi, UAE
- Teaching assistant for the course NLP-801 (Deep Learning for NLP)

OTHER INTERESTS

- Book reading, Exploring culture & Traveling, Playing badminton & soccer, Listening podcasts