# MUHAMMAD **ARSLAN** MANZOOR

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Google Scholar | homepage | LinkedIn

## EDUCATION

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

- Supervisors: Prof. Preslav Nakov, Prof. Monojit Choudhury, and Dr. Shangsong Liang
- Research: Detection of Bias & Factuality in News Media, Emotional and Empathic understanding of LMs
- 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*

- Supervisor: Prof. Jianfeng Lu
- Thesis: "Sentiment Analysis of Roman Urdu Sentences with Deep Neural Networks"
- Major courses: Artificial Intelligence, Computer Vision, Machine Learning, Distributed Data

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

- Supervisor: Dr. Muhammad Shabbir Abbasi

## RESEARCH INTERESTS

- News Media Profiling, News Media Graphs, Enhancing GNNs for improved media profiling
- Evaluating / Enhancing the Emotional and Empathic understanding of LMs
- Enhancing the factuality of Large Language Models
- Multi-modal learning for NLP

## PUBLICATIONS

Ally: Multi-Graph and Text Fusion for Improved Detection of Bias and Factuality in News Media  *(sub to ARR-2024)*
**Muhammad Arslan Manzoor**, Dilshod Azizov, Daniil Oreal, Zain Muhammad Mujahid, Preslav Nakov

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

A Decade of Deep Learning: Exploring the Top Seven Algorithms  *(sub. to ACM-2024)*
Dilshod Azizov, **Muhammad Arslan Manzoor**, Shangsong Liang

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

A Survey on Predicting the Factuality and the Bias of News Media (Paper)  *(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)  *(EMNLP-2024)*
Yuxia Wang, Minghan Wang, **Muhammad Arslan Manzoor**, Fei Liu, Georgi Georgiev, Rocktim Jyoti Das, Preslav Nakov

FRAPPE: FRAming, Persuasion, and Propaganda Explorer  (Paper)  *(EACL Demo-2023)*
Ahmed Sajwani, ..., **Muhammad Arslan Manzoor**,... Preslav Nakov

Multimodality Representation Learning: A Survey on Evolution, Pretraining and Its Applications (Paper)  *(ACM-TOMM-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

## Professional Experience

### Research Officer
Nov 2020 – July 2021

*Centre of Language Engineering, Al-Khwarizmi Institute of Computer Science, UET, Lahore, Pakistan*
*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*
*Research topics:* Conversational AI, Language Models

- Assistant to Professor Anas Basalamah, worked on AI conversational Projects
- Investigated LSTM and Attention based Models 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*
*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

## 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

## 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)

## Languages

English, Urdu, Arabic, Hindi, Punjabi, Chinese

## Other Interests

- Reading philosophy books, Exploring culture, Traveling, Playing badminton & soccer, Listening Tech podcasts