

M. Usman Malik, PhD

POSTDOCTORAL RESEARCHER @ LITIS LAB, UNIVERSITY OF ROUEN. · DATA SCIENCE MACHINE LEARNING ENGINEER

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“Aim for simplicity in Data Science. Real creativity won’t make things more complex. Instead, it will simplify them.”

Summary

As a PhD holder in Computer Sciences, I possess a strong specialization in Artificial Intelligence (AI). I am currently serving as a Postdoctoral Researcher at the LITIS Lab, University of Rouen. My ultimate goal is to build a career as a dedicated Artificial Intelligence and Machine Learning Researcher. My research interests center around Natural Language Processing (NLP) and Multimodal Human Agent Interaction, and I aim to work in an environment that will allow me to apply my expertise towards creating positive societal impacts.

Education

Doctorate of Philosophy (PhD) in Computer Science

LITIS LAB, INSA ROUEN, NORMANDY UNIVERSITY

- Machine Learning for Multimodal Human Computer Interaction

Rouen, France

Sep. 2017 - Nov 2020

M.Sc Software Engineering

UET TAXILA

- CGPA of 3.83/4.0

Rawalpindi, Pakistan

Sep. 2013 - Dec. 2015

B.Sc Software Engineering

UET TAXILA

- CGPA of 3.56/4.0

Rawalpindi, Pakistan

Sep. 2008 - Jul. 2012

Work Experience

Postdoctoral Researcher

LITIS LAB, UNIVERSITY OF ROUEN

- Working on sentiment classification from social media tweets
- Research area include deep learning, NLP, LLMs, incremental learning.

Rouen, France

March. 2022 - Present

Research Engineer

L3I LAB, UNIVERSITY OF LA ROCHELLE

- Working on business document classification
- Research area include deep learning, few shot learning, incremental learning

La Rochelle, France

Dec. 2020 - Feb. 2022

Assistant Manager

ADVANCED ENGINEERING RESEARCH ORGANIZATION

- Developed various software modules using MS.NET Framework
- Developed Concealed Weapon Detection System via machine learning technique

Islamabad, Pakistan

Apr. 2014 - Feb. 2017

Software Engineer

DIYATECH CORPORATION

- Worked on NCache (High Performance Virtual Cache)
- Configuration Management, Setup Development

Islamabad, Pakistan

Sep. 2012 - Apr. 2013

Honors & Awards

INTERNATIONAL

2017-2020 **Research Funding**, PhD Research Funding for France

Rouen, France

DOMESTIC

2015 **M.Sc Software Engineering**, 2nd Position
2013 **FYP Exhibition at UET Taxila**, 2nd Position
2005 **First Place with Rs. 50 thousand cash**, National Essay Writing Competition

UET Taxila
UET Taxila
NAB Headquarters,
Peshawar

Skills

Technical Skills

- **Programming Languages & Libraries:** C++, Java, Python, TensorFlow, Pytorch, Keras, Scikit Learn, HTML, CSS, JS, PHP, MS.NET Techs
- **Operating Systems:** Windows, Linux, Android
- **Databases:** SQL Server, MySQL, Oracle, PostgreSQL
- **Designing:** Star UML, Concept Draw, Adobe Photoshop, Microsoft Visio.
- **Technical Writing:** MS Word, Latex, Markdown
- **Major Software/IDEs:** Eclipse, Microsoft visual studio, MATLAB, WEKA, Netbeans, SpiraTest, Anaconda, Spyder, Jupyter

Research Publications

- Malik, U., Visani, M., Sidere N., Coustaty M., Joseph, A. Experimental study of Rehearsal-based Incremental Classification of Document Streams. *Journal of Information Sciences-Elsevier* (under review)
- Malik, U., Barange, M., Saunier, J. et al. A novel focus encoding scheme for addressee detection in multiparty interaction using machine learning algorithms. *J Multimodal User Interfaces*, 15, pp.175-188 (2021). <https://doi.org/10.1007/s12193-020-00361-9>
- Trabelsi, I., Perotto, F.S. Malik, U. Training universal background models with restricted data for speech emotion recognition. *J Ambient Intell Human Comput* (2021). <https://doi.org/10.1007/s12652-021-03200-1>
- U. Malik, J. Saunier, K. Funakoshi and A. Pauchet, "Who Speaks Next? Turn Change and Next Speaker Prediction in Multimodal Multiparty Interaction," 2020 IEEE 32nd International Conference on Tools with Artificial Intelligence (ICTAI), Baltimore, MD, USA, 2020, pp. 349-354.
- Khan, W., Malik, U., Ghazanfar, M.A. et al. Predicting stock market trends using machine learning algorithms via public sentiment and political situation analysis. *Soft Comput* (2019).
- U. Malik, M. Barange, J. Saunier, A. Pauchet, A Generic Machine Learning based Approach for AddresseeDetection in Multiparty Interaction , *International Conference on Intelligent Virtual Agents (IVA)*, Paris, pp. 119-126, 2019.
- U. Malik, M. Barange, J. Saunier, A. Pauchet, Using Multimodal Information to Enhance Addressing Detection in Multiparty Interaction , *International Conference on Agents and Artificial Intelligence (ICAART)*, Prague, Czech Republic, pp. 267-274, 2019.
- U. Malik, M. Barange, J. Saunier and A. Pauchet, "Performance Comparison of Machine Learning Models Trained on Manual vs ASR Transcriptions for Dialogue Act Annotation," 2018 IEEE 30th International Conference on Tools with Artificial Intelligence (ICTAI), Volos, Greece, pp. 1013-1017, 2018.
- U. Malik, M. Barange, J. Saunier, A. Pauchet, Towards Generic Multimodal Interaction Systems based on machine learning and context awareness , *Workshop Affects, Artificial Companions and Interaction (WACAI)*, France, 9p. (poster), 2018.
- M. U. Malik, W. Ahmed, A. Majid, Z. Yaqoob and A. Rafique, "Learning augmented standoff Concealed Weapon Detection," 2017 14th IEEE International Bhurban Conference on Applied Sciences and Technology (IBCAST), Islamabad, 2017, pp. 830-837.

Internships & Summer Schools

Research Associate

INTERNSHIP

- Completed research on Multiparty Human-machine Interaction

Kyoto University, Japan

Nov 2019 - Dec 2019

Institute of Analytics and Data Science Summer School, 2019

SUMMER SCHOOL

- Attended various short courses on Machine Learning and Data Science

University of Essex, England, UK

August, 2019

Corpus Based NLP, 2018

SUMMER SCHOOL

- Studied various corpus based NLP techniques

Lancaster University, England, UK

July, 2018

References

Alexandre Pauchet

PHD SUPERVISOR

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*Rouen, France**Known since 2017***Mickael Coustaty**

DIRECTOR

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- **Email :** mickael.coustaty@univ-lr.fr

*La Rochelle, France**Known since 2020*