RABEEA JAFFARI

Dedicated to resolve global challenges via education and AI-based research

BASIC INFORMATION

rabeea.jaffari@faculty.muet.edu.pk; rabeea_19000989@utp.edu.my, +923428349451
Website: github.com/rubeea

WORK EXPERIENCE

Assistant Professor — Dec 2022 - Present
Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

Lecturer — Mar 2018 - Nov 2022
Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

Teaching Assistant — Aug 2016 - Jan 2018
Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan

Visiting Lecturer — Aug 2017 - May 2018
HiAST: Hyderabad Institute of Arts, Science and Technology, Hyderabad, Sindh, Pakistan

Junior PHP Developer — Nov 2016 - Jan 2017
CodEx Solutions, Hyderabad, Sindh, Pakistan

Junior Android Developer, Hyderabad, Sindh, Pakistan — Mar 2016 - Jul 2016
Gexton Inc., Hyderabad, Sindh, Pakistan

Intern — Jun 2015 - Jul 2015
National Bank of Pakistan, Karachi, Sindh, Pakistan

Intern — Jun 2014 - Aug 2014
Microsoft Innovation Center, Karachi, Sindh, Pakistan

EDUCATION

PhD in Information Technology — Jul 2019 - Nov 2022
Universiti Teknologi Petronas, Malaysia
Received Graduate on Time (GoT) award

Masters in Software Engineering — Apr 2016 - Jun 2018
Mehran University of Engineering and Technology, Jamshoro

Bachelors in Software Engineering — Jan 2012 - Feb 2016
Mehran University of Engineering and Technology, Jamshoro
Secured first position in B.E (Software Engineering)

Intermediate — Aug 2009 - May 2011
Superior College of Science
Secured second position in HSC Part-II examinations (Pre-engineering group)

Matriculation Aug 2007 - Apr 2009

County Cambridge School

Secured fourth position in SSC Part-II examinations (Science group)

SKILLS

Programming | Machine Learning (ML) and Deep Learning (DL) | Databases | Research Analysis | Grant Writing | Communication | Public Speaking | Leadership

CERTIFICATIONS

DeepLearning.AI TensorFlow Developer Professional Certification

PROFESSIONAL COURSES

1. Research Opportunities Week (ROW) Organized by Technical University of Munich (TUM), Germany, 09 - 13 October, 2023, Munich, Germany.
2. High Performance Computing for Sustainable Development Organized by International Center for Theoretical Physics (ICTP), National Institute of Theoretical and Computational Sciences (NITheCs), 17 - 21 April, 2023, Stellenbosch, South Africa.
3. Women Leadership Program Organized by Higher Education Commission (HEC), Pakistan, 13 - 17 March, 2023, HEC Regional Centre, Karachi, Pakistan.
4. Biofuel (Green Energy) Production and Parametric Analysis for High Yield via ASPEN HYSYS Simulation Organized by Centre for Advanced and Professional Education (CAPE), Universiti Teknologi PETRONAS (UTP), 23 - 24 March, 2022, Malaysia.
5. Application of Future Technologies (Machine Learning) for Biofuel (Green Energy) Production Organized by Centre for Advanced and Professional Education (CAPE), Universiti Teknologi PETRONAS (UTP), 25 - 26 October, 2021, Malaysia.
6. AI-100T01- Designing and Implementing an Azure AI Solution Organized by Iverson, 27 - 28 April, 2020, Malaysia.

GRANTS, AWARDS AND SERVICES

Research Grants
- A Novel Image based Deep Learning Model for Mooring Lines Fault Detection, Research Grant UTP, Malaysia (YUTP-FRG 1/2021), 2021-2024
- Towards Artificial Intelligence (AI) in CO_2 Electrochemical/Biochemical Reduction Catalysis – Joint Research Grant between UTP, Malaysia and Kyutech, Japan (RG2022-1366), 2022-2024

Awards
- International Biomedical Engineering Annual Contest, BENMAX (College Scientific Paper), First Prize,2022
- Malaysian universities Oil and Gas Paper Contest, Best Paper Award for Exploration Track, 2022
- Thesis in 3 Minutes (3MT), UTP, 2nd Runner Up Award, 2022
- CISD, UTP, Q1/Q2 Publication Award, 2021
- CSD, UTP, Department's Best Postgraduate Student Award, 2021
- Haliburton Data Science Hackathon, UTP, First Prize, 2021
- Thesis in 5 Minutes (T5M), MNNF Network, Gold Award, 2021
- International Emerging Technology Competition, Silver Award, 2021

Academic Service
- Technical Engineering Session Secretary, 1st International Conference on Women Development in

Engineering Science &Technology (WD-EST'23), Mehran University of Engineering & Technology (MUET), Pakistan, Oct 2023
- Peer reviewer for Journal of Real-Time Image Processing. Springer
- Peer reviewer for International conference on Emerging Technologies in Electronics, Computing and Communication (ICETECC`22), IEEE, Mehran University of Engineering & Technology (MUET), Pakistan, Dec 2022

RESEARCH PUBLICATIONS

Cumulative Impact Factor: 23.59

Google Scholar Profile: https://scholar.google.com/citations?hl=en&user=Qfh5Pu8AAAAJ
- Jaffari, Rabeea, et al. "Defining Thin Objects in Computer Vision." (Accepted at IEEE Conference AICTC 2024, to be held at Bahrain from 27-28 Feb 2024)
- Rahman NA, May Z, Jaffari R, Hanif M. "Failure Severity Prediction for Protective-Coating Disbondment via the Classification of Acoustic Emission Signals." Sensors. 2023 Jul 31;23(15):6833. **(IF: 3.847)**
- Jaffari, Rabeea, et al. "PLPose: An Efficient Framework for Detecting Power Lines via Key Points-based Pose Estimation." Journal of King Saud University-Computer and Information Sciences (2023): 101615. **(IF: 6.9)**
- Memon, Mariam, et al. "Feature-Based Semi-Supervised Learning Approach to Android Malware Detection." Engineering Proceedings 32.1 (2023): 6.
- Ahmed, Syed Fahad, et al. "An MFCC-based Secure Framework for Voice Assistant Systems." 2022 International Conference on Cyber Warfare and Security (ICCWS). IEEE, 2022.
- Junejo, Aisha Zahid, et al. "RZee: Cryptographic and statistical model for adversary detection and filtration to preserve blockchain privacy." Journal of King Saud University-Computer and Information Sciences (2022). **(IF: 9.0)**
- Jaffari, Rabeea, et al. "Deep Learning Object Detection Techniques for Thin Objects in Computer Vision: An Experimental Investigation." 2021 7th International Conference on Control, Automation and Robotics (ICCAR). IEEE, 2021.
- Jaffari, Rabeea, Manzoor Ahmed Hashmani, and Constantino Carlos Reyes-Aldasoro. "A Novel Focal Phi Loss for Power Line Segmentation with Auxiliary Classifier U-Net." Sensors 21.8 (2021): 2803. **(IF: 3.847)**
- Ahmed, Syed Saad, et al. "StegoBound: A Novel Image Steganography Technique Using Boundary-Based LSB Substitution." Journal of Hunan University Natural Sciences 48.6 (2021).
- Jaffari, Rabeea, et al. "A Novel Image-Based Framework for Process Monitoring and Fault Diagnosis of Mooring Lines." Journal of Hunan University Natural Sciences 47.10 (2020).
- Valliani, Mashal, Agha Saba Asghar, and Rabeea Jaffari. "VEDZA: Kinect Based Virtual Shopping Assistant." Intelligent Computing and Innovation on Data Science. Springer, Singapore, 2020. 465-474.
- Komal Naz, Dr. Isma Farah, Rabeea Jaffari, "Predictive analytics for employee churn in software industry using exploratory data analysis", Proceedings of International Conference on Computational Sciences and Technologies, INCCST 2019 Jamshoro,10-12th April 2019.
- Memoona Sami, Junaid Baloch, Mariam Jawaid, Rabeea Jaffari, Dr. Isma Farah, "LERNEN, Connecting Professionals and Students", Proceedings of The 14th Asia Pacific International Conference on Information Science & Technology (APIC-IST 2019), Beijing, China, June 2019.
- Junaid Baloch, Memoona Sami, Rabeea Jaffari, Amirita Dewani, "An Efficient Approach for Predicting Shortest Path to Travel over Road Traffic", Proceedings of The 14th Asia Pacific International Conference on Information Science & Technology (APIC-IST 2019), Beijing, China, June 2019.
- Ahmed, Saad, Rabeea Jaffari, and Liaquat Ali Thebo. "Data hiding using green channel as pixel value indicator." International Journal of Image Processing 12 (2018): 90-100.
- R. Iftikhar, M. Memon, T. Hafiz and R. Jaffri, "A Novel framework for location based messages," 2018 5th International Multi-Topic ICT Conference (IMTIC), 2018, pp. 1-7, doi: 10.1109/IMTIC.2018.8467204.
- Jaffari, Rabeea, et al. "Framework of business intelligence systems for infrastructure design and management." 2017 First International Conference on Latest trends in Electrical Engineering and Computing Technologies (INTELLECT). IEEE, 2017.