## **Muhammad Naseer Bajwa**

Post-Doctoral Research Fellow

School of Electrical Engineering and Computer Science

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#### **About**

Dr. Muhammad Naseer Bajwa is working as Post-Doctoral Research Fellow in the School of Electrical Engineering and Computer Science. Dr. Muhammad Naseer Bajwa has a PhD in Deep Learning. Dr. Muhammad Naseer Bajwa has published 11 research articles & conference papers having a citation count of 371, carried out 3 projects and filed 0 intellectual property.

#### Qualifications

PhD in Deep Learning	2018 - 2022
TU Kaiserslautern , Germany	
MS in NA	2012 - 2014
King Fahad University of Petroleum and Minerals , Saudi Arabia	
BS in NA	2005 - 2009
COMSATS Institute of Information Technology , Pakistan	
Experience	
Post-Doctoral Research Fellow	2025- Present
School of Electrical Engineering and Computer Science	

# Assistant Professor School of Electrical Engineering and Computer Science

School of Electrical Engineering and Computer Science

Assistant Professor
School of Electrical Engineering and Computer Science

DFKI GmbH, Trippstadter Str 122, Kaiserslautern, Germany

Lab Engineer

CIIT, Lahore Campus, Defense Road, Off Raiwind Raod, Lahore

2009 - 2012

2024 - 2024

2022 - 2024

2017 - 2022

#### **Research Projects**

## **National Projects**

Research Assistant

NeuReader: Eye Tracking Enabled Explainable-Al for Empowering Resource Scarce Neurological

2024

Healthcare in Pakistan

Funding Agency: Early Career Researcher Collaborations for Global Development by Engineering and Physical Sciences Research Council (EPSRC), UK

Amount: PKR 41,748,000.00 Status: Approved\_inprocess

## SLUM-i: A Remote Sensing Based Intelligent Framework for Detection and Predictive Growth Analysis

2023

of Slums for Sustainable Socio-Economic Development of Pakistan

Funding Agency: DAAD Amount: PKR 14,423,146.00 Status: Approved\_inprocess

#### AI-FORCAST: AI-based Forest Carbon Stock Assessment for Climate Change Mitigation

2023

Funding Agency: DAAD German Academic Exchange Service

Amount: PKR 12,106,119.00 Status: Approved inprocess

### **International Projects**

#### **Research Articles**

#### ExAID: A multimodal explanation framework for computer-aided diagnosis of skin lesions

2022

Adriano Lucieri Muhammad Naseer Bajwa Stephan Alexander Braun Muhammad Imran Malik Andreas Dengel Sheraz Ahmed

Computer Methods and Programs in Biomedicine, Volume 215, Article Number 106620

Impact Factor: 6.100 | Quartile: 1 | Citations: 57 DOI: https://doi.org/10.1016/j.cmpb.2022.106620

## Confident Classification Using a Hybrid Between Deterministic and Probabilistic Convolutional Neural

2020

#### Networks

Muhammad Naseer Bajwa Suleman Khurram Mohsin Munir Shoaib Ahmed Siddiqui Muhammad Imran Malik Andreas Dengel Sheraz Ahmed

IEEE Access, Volume: 8, Pages 115476-115485 Impact Factor: 3.367 | Quartile: 2 | Citations: 6

DOI: 10.1109/ACCESS.2020.3004409

#### Computer-aided diagnosis of skin diseases using deep neural networks

2020

Muhammad Naseer Bajwa Kaoru Muta Muhammad Imran Malik Shoaib Ahmed Siddiqui Stephan Alexander Braun Bernhard Homey Andreas Dengel Sheraz Ahmed

Applied Sciences, Volume 10(7), Article Number 2488 Impact Factor: 2.679 | Quartile: 2 | Citations: 121 DOI: https://doi.org/10.3390/app10072488

## Two-stage framework for optic disc localization and glaucoma classification in retinal fundus images

2019

using deep learning

Muhammad Naseer Bajwa Muhammad Imran Malik Shoaib Ahmed Siddiqui Andreas Dengel Faisal Shafait Wolfgang Neumeier sheraz Ahmed BMC Medical Informatics and Decision Making, Volume 19, Article Number 136

Impact Factor: 2.317 | Quartile: 3 | Citations: 165

DOI: 10.1186/s12911-019-0842-8

#### **AVL and Monitoring for Massive Traffic Control System over DDS**

2015

Basem Almadani Shehryar Khan Muhammad Naseer Bajwa Tarek R. Sheltami Elhadi Shakshuki Mobile Information Systems, Volume 2015, Article ID 187548, 9 pages

Impact Factor: 1.462 | Quartile: 2 | Citations: 8

DOI: http://dx.doi.org/10.1155/2015/187548

## Performance evaluation of DDS-based middleware over wireless channel for reconfigurable manufacturing systems

2015

Basem Almadani Muhammad Naseer Bajwa Shuang-Hua Yang Abdul-Wahid A. Saif International Journal of Distributed Sensor Networks, Volume 2015, Article ID 863123, 11 pages

Impact Factor: 0.906 | Quartile: 3 | Citations: 14 DOI: http://dx.doi.org/10.1155/2015/863123

## **Conference Proceedings**

## **Explaining Al-Based Decision Support Systems Using Concept Localization Maps** 2020 Adriano Lucieri Muhammad Naseer Bajwa Andreas Dengel Sheraz Ahmed International Conference on Neural Information Processing, res.country(217,) Citations: N/A DOI: https://doi.org/10.1007/978-3-030-63820-7 21 On Interpretability of Deep Learning based Skin Lesion Classifiers using Concept Activation Vectors 2020 Adriano Lucieri Muhammad Naseer Bajwa Stephan Alexander Braun Muhammad Imran Malik Andreas Dengel Sheraz Ahmed International Joint Conference on Neural Networks, res.country(231,) Citations: N/A DOI: 10.1109/IJCNN48605.2020.9206946 G1020: A Benchmark Retinal Fundus Image Dataset for Computer-Aided Glaucoma Detection 2020 Muhammad Naseer Bajwa Gur Amrit Pal Singh Wolfgang Neumeier Muhammad Imran Malik Andreas Dengel Sheraz Ahmed Proceedings of the International Joint Conference on Neural Networks, res.country(231,) DOI: 10.1109/IJCNN48605.2020.9207664 Combining Fine- and Coarse-Grained Classifiers for Diabetic Retinopathy Detection 2019 Muhammad Naseer Bajwa Yoshinobu Taniguchi Muhammad Imran Malik Wolfgang Neumeier Andreas Dengel Sheraz Ahmed Communications in Computer and Information Science, res.country(231,) Citations: N/A DOI: 10.1007/978-3-030-39343-4 21 **Book Chapters** Erklärbare KI in der medizinischen Diagnose – Erfolge und Herausforderungen 2022 Adriano Lucieri Muhammad Naseer Bajwa Andreas Dengel Sheraz Ahmed In: Book on Künstliche Intelligenz im Gesundheitswesen, 1st Edition, Chapter 35, Pages 727-754 Citations: N/A DOI: 10.1007/978-3-658-33597-7 35 **Editorial Activities** N/A 2025 Reviewed Papers for Journals Impact Factor: N/A N/A 2025 Reviewed Papers for Journals Impact Factor: Not applicable N/A 2024 Reviewed Papers for Journals Impact Factor: Not applicable N/A 2024 Reviewed Papers for Journals Impact Factor: Not Applicable N/A 2024 Reviewed Papers for Journals Impact Factor: Not Applicable N/A 2024 Reviewed Papers for Journals Impact Factor: N/A **Trainings** Advanced Al Bootcamp on Deep Neural Networks (DNN)

Partner: Ashar Aziz Foundation

Duration: 11-Aug-2023 to 17-Nov-2023