

Dr. Adnan Ashraf

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 Beijing, China

Holding a Ph.D. in Computer Science from Beijing Institute of Technology (BIT), specializing in Medical Image Analysis, Deep Learning, Pre-trained Models, Transfer Learning, and Vision Transformers, possesses collateral expertise in Evolutionary Computing and Swarm Intelligence, with a proven ability to lead research and deliver practical solutions. Seeking a faculty or research role to apply rigorous AI innovation to challenges with significant academic and industrial impact.

Education

2020–2025	Ph.D. Computer Science Beijing Institute of Technology, China Specialization: Image Processing Thesis: Specific Deep Learning Methods for Identifying Autism by Gender and Age on fMRI Data.
2016–2018	M.S. Computer Science University of Gujrat (UOG), Pakistan Specialization: Swarm Intelligence / Machine Learning Thesis: An Improved Particle Swarm Optimization for Data Classification and Function Optimization.
2012–2014	MCS: Masters in Computer Science Virtual University (VU), Pakistan Specialization: Web Applications Thesis: jQuery Mobile Icon Web Application using MVC framework and Bootstrap3.

Professional Experience

2017–Present	Web Developer , IT Support Center, Govt. College Women University Sialkot, Pakistan.
2018–2023	AI Expertise , FIVER, Global.
2018–2022	Data Science , Upwork, Global.
2014–2017	IT Manage , MOTOFAST International, Pakistan.
2014–2015	Teaching Assistant , Department of Computer Science, Virtual University, Pakistan.
2011–2014	IT Support & Graphics , MOTOFAST International, Pakistan.

Skill Set

- **ML & AI** : Expertise in supervised and unsupervised learning, NN, ML, DL, and RL, NLP, LLM Models.
- **Data Analysis** : Expertise in Numerical, Image and Voice data analysis, data pre-processing.
- **Python** : NumPy, Pandas, Nibible, TensorFlow, SciPy, Matplotlib, Tesseract, OpenCV.
- **R Language** : randtoolbox, DiceDesign, ggplot2, tidyverse, broom, statistical analysis.
- **Technical Tools** : MATLAB/SIMULINK.
- **Web** : HTML, Bootstrap, CSS, JQuery, Codeigniter, OpenCart, Magento, Wordpress.
- **Misc.** : Academic: research, training, consultation, scholarly publishing, & $\LaTeX$ typesetting.
- **Languages** : Strong reading, writing, and speaking competencies in English and Urdu and beginner level in Chinese.

Publications

Journal Publications

- **Adnan Ashraf**, Qingjie Zhao, Waqas Haider Bangyal, Mudassar Raza, Muddesar Iqbal, **Female autism categorization using CNN based NeuroNet57 and ant colony optimization**, Computers in Biology and Medicine, Vol. 189, 2025. **(IF:6.3)**
DOI:10.1016/j.compbiomed.2025.109926.
- **Adnan Ashraf**, Qingjie Zhao, Waqas Haider Bangyal, Muddesar Iqbal, **Analysis of brain imaging data for the detection of early age autism spectrum disorder using transfer learning approaches for internet of things**, IEEE Transactions on Consumer Electronics, Vol. 70, no. 1, 2023. **(IF:10.9)**
DOI:10.1109/TCE.2023.3328479.
- **Adnan Ashraf**, Qingjie Zhao, Waqas Haider Bangyal, Mudassar Raza, and Maeeda Khalid, **Age Specific Autism Categorization Using Dual-Stream Fusion Neural Networks with Features Selection**, Engineering Applications of Artificial Intelligence, 2025.(under review) **(IF:8.0)**
- **Adnan Ashraf**, Qingjie Zhao, Waqas Haider Bangyal, Mudassar Raza, and Maeeda Khalid, **Gender-specific Autism Identification using Enhanced CNN on Neuro Sensing Data**, IEEE Sensors Journal, 2025.(under review) **(IF:4.5)**
- **Adnan Ashraf**, Qingjie Zhao, Waqas Haider Bangyal, and Maeeda Khalid, **The Impact of Gender Base Early Age Detection with Autism Spectrum Disorder: A Systematic Literature Review**, Scientific Reports, 2025.(under review) **(IF:3.9)**
- Muhammad Ikram ul Haq¹, Waqas Haider Bangyal, Arfan Jaffar, Asma Abdullah Alfayez, **Adnan Ashraf**, Meshari Alazmi⁸, Mubbashar Hussain, **Gender based Alzheimer's Detection using ResNet-50 and Binary Dragonfly Algorithm on Neuroimaging**, Frontiers in Artificial Intelligence, 2025.(under review) **(IF:4.7)**
- **Adnan Ashraf**, Abdulwahab Ali Almazroi, Waqas Haider Bangyal, and Mohammed A. Alqarni, **Particle Swarm Optimization with New Initializing Technique to Solve Global Optimization Problems**, Intelligent Automation & Soft Computing, Vol. 31, no. 1, pp. 191-206, 2022, **(JCR:Q3)**
DOI:10.32604/iasc.2022.015810.
- Pervaiz, Sobia, Waqas Haider Bangyal, **Adnan Ashraf**, Kashif Nisar, Muhammad Reazul Haque, Ag Ibrahim, A. B. Ag, B. Chowdhry, Waqas Rasheed, and J. J. Rodrigues, **Comparative research directions of population initialization techniques using PSO algorithm**, Intelligent Automation & Soft Computing, Vol. 32, no. 3, pp. 1427-1444, 2022. **(JCR:Q3)**
DOI:10.32604/iasc.2022.017304.
- Waqas Haider Bangyal, **Adnan Ashraf**, Rabia Shakir, and Najeeb Ur Rehman, **A Review on Consumer Behavior Towards Online Shopping using Machine Learning**, International Journal of Emerging Multidisciplinaries: Computer Science & Artificial Intelligence, Vol. 1, no. 1, p. 105-114, 2022, **(JCR:Q3)**
DOI:10.54938/ijemdc sai.2022.01.1.84.
- **Adnan Ashraf**, Sobia Pervaiz, Waqas Haider Bangyal, Kashif Nisar, Ag Asri Ag. Ibrahim, Joel J. PC Rodrigues, and Danda B. Rawat, **Studying the impact of initialization for population-based algorithms with low-discrepancy sequences**, Applied Sciences, Vol. 11, no. 17, 2021, **(JCR:Q2)**
DOI:10.3390/app11178190.

Conference Publications

- Bangyal, Waqas Haider, Rabia Shakir, **Adnan Ashraf**, Zia Ul Qayyum, and Najeeb Ur Rehman, **Automatic detection of diabetic retinopathy from fundus images using machine learning based approaches**, IN 2023 25TH INTERNATIONAL MULTITOPIC CONFERENCE (INMIC), IEEE, pp. 1-6, 2023.

- Bangyal, Waqas Haider, Rabia Shakir, Najeeb Ur Rehman, **Adnan Ashraf**, and Jamil Ahmad, **An improved seagull algorithm for numerical optimization problem**, IN INTERNATIONAL CONFERENCE ON SWARM INTELLIGENCE, Cham: Springer Nature Switzerland, pp. 297-308, 2023.
- Maeeda Khalid, **Adnan Ashraf**, Waqas Haider Bangyal, and Muddesar Iqbal, **An android application for unwanted vehicle detection and counting**, IN 2023 INTERNATIONAL CONFERENCE ON HUMAN-CENTERED COGNITIVE SYSTEMS (HCCS), Cardiff, GB, pp. 1-6. IEEE, 2023.
- **Adnan Ashraf**, Aliza Anwaar, Waqas Haider Bangyal, Rabia Shakir, Najeeb Ur Rehman, and Zhao Qingjie, **An improved fire hawks optimizer for function optimization**, IN INTERNATIONAL CONFERENCE ON SWARM INTELLIGENCE (ISCI-2023), Cham: Springer Nature Switzerland, pp. 68-79, 2023.
- Aliza Anwaar, **Adnan Ashraf**, Waqas Haider Bangyal, and Muddesar Iqbal, **Genetic algorithms: Brief review on genetic algorithms for global optimization problems**, 2022 HUMAN-CENTERED COGNITIVE SYSTEMS (HCCS), Shanghai, China, pp. 1-6. IEEE, 2022.
- **Adnan Ashraf**, Waqas Haider Bangyal, Hafiz Tayyab Rauf, Sobia Pervaiz, and Jamil Ahmad, **Training of artificial neural network using new initialization approach of particle swarm optimization for data classification**, IN 2020 INTERNATIONAL CONFERENCE ON EMERGING TRENDS IN SMART TECHNOLOGIES (ICETST), Karachi Pakistan, pp. 1-6. IEEE, 2020.
- Waqas Haider Bangyal, Muhammad Jawad Haider, **Adnan Ashraf**, Muhammad Awais Amin, Rabia Shakir, Shahbaz Chatta, **Multilingual Text Scene Detection using Transfer Learning based Approaches**, 2ND INTERNATIONAL CONFERENCE ON COMPUTING & EMERGING TECHNOLOGIES (ICCET-2025), Lahore Pakistan, Spring LNCS, 2025. (under review)
- Ali Raza, Najeeb Ur Rehman, Waqas Haider Khan, **Adnan Ashraf**, **Enhanced Whale Optimization Algorithm with Novel Initialization Techniques for Global Optimization Problems**, 2ND INTERNATIONAL CONFERENCE ON COMPUTING & EMERGING TECHNOLOGIES (ICCET-2025), Lahore Pakistan, Spring LNCS, 2025. (under review)
- Waqas Haider Bangyal, Rabia Shakir, **Adnan Ashraf**, Muddesar Iqbal, **Hybrid AE-BiLSTM Assisted DL framework for Accurate Multi-horizons Short-Term Load Forecasting in Smart Grid**, IEEE INTERNATIONAL CONFERENCE ON COMPUTATIONAL INTELLIGENCE, SECURITY, AND ARTIFICIAL INTELLIGENCE, Al Khobar, Kingdom of Saudi Arabia, IEEE, 2025. (under review)

Research Projects

Research Dissertation

- **Ph.D.** (2025): Specific Deep Learning Methods for Identifying Autism by Gender and Age on fMRI Data.
- **MS-CS** (2018): An Improved Particle Swarm Optimization for Data Classification and Function Optimization.

Co-Supervised Thesis

- **MS** (2024): Enhanced Fire Hawk Optimizer (FHO) Algorithm For Continuous Optimization.
- **MS** (2024): Enhanced Whale Optimization Algorithm for Function Optimization and Data Classification.
- **MS** (2023): An Improved Fire Hawks Optimizer For Function Optimization.
- **Doctoral** (Continue): Alzheimer Identification using ADNI Dataset.

Professional Research Projects

- A Deep Learning based Approach for Detecting and Counting Vehicles on Live Camera.

- Animal Image Classification using CNN+SVM+XGBOOST.
- A Machine Learning Approach for Detecting Fake News on Social Media Platforms.
- A Computer Vision based USE-BY DATE Recognition in Retail Food Package Images.
- Multilingual Text Scene Detection using Transfer Learning based Approaches.
- Lung Cancer Detection using Transfer Learning Models on NSCLC-Radiomics dataset.

Honor, Awards and Presentations

- **Fully-Funded Chinese Government Scholarship (CSC)**, Beijing Institute of Technology (BIT), China (2020).
- Highly Cited Paper: **IEEE Trasnaction on Consumer Electronics**
- Presented paper in “**2023 25th International Multitopic Conference (INMIC)**”, in Lahore, Pakistan, (2023).
- Presented paper in “**The Fourteenth International Conference on Swarm Intelligence (ICSI’2023)**”, in Shenzhen, China, (2023).
- Presented paper in “**2022 Human-Centered Cognitive Systems (HCCS)**”, in Shanghai, China, (2022).
- Presented paper in “**2020 International Conference on Emerging Trends in Smart Technologies (ICETST)**”,in Karachi, Pakistan, (2020).
- Presented Workshop on “**2018 International Conference on Emerging Trends in Smart Technologies (ICETST)**”,in Karachi, Pakistan, (2020).

Professional Service & Memberships

Academic Journal Reviewer

- IEEE Transactions on Neural Systems and Rehabilitation Engineering:(2024–Present)
- IEEE Transactions on Neural Systems & Rehabilitation Engineering:(2025–Present)
- IEEE Transactions on Neural Networks and Learning Systems:(2025–Present)
- Signal Processing:(2024–Present)
- Scientific Reports:(2024–Present)

Professional Certifications

- Designing Presentation Slides, National Research, Tomsk State University, Russia (2020)
- Python Basics, University of Michigan, USA (2020)
- Python Functions, Files and Dictionaries , University of Michigan, USA (2020)
- Data Collection and Processing with Python , University of Michigan, USA (2020)
- Python Classes and Inheritance , University of Michigan, USA (2020)
- Python Project: pillow, tesseract, and opencv, University of Michigan, USA (2020)
- Build a Full Website using WordPress , Project Network, USA (2020)
- Increase SEO Traffic with WordPress , Project Network, USA (2020)
- Think Again I: How to Understand Arguments , Duke University, USA 2020
- Think Again II: How to Understand Arguments , Duke University, USA 2020
- Blockchain: Foundation and Use Cases , Consensys Academy, USA, 2021
- HUAWEI Training of HEIs Staff Under TESP on Cloud Computing, Higher Education Commission of Pakistan & Techaccess Pakistan Pvt. Ltd., Pakistan, 2017

References

Prof. Dr. Qingjie Zhao

IEEE Member

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Prof. Dr. Zia Ul-Qayyum

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Declaration

I declare that the above information given by me is true to the best of my knowledge.