

Israr Ahmad

Prospective PhD Student in AI

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in israr-ahmad45

EDUCATION

- 09/2018-07/2021 **Master of Engineering (MEng) in Pattern Recognition**, *Beihang University*, Beijing, China, (GPA: 3.31/4.00)
- *Major Courses*: Application of Artificial Intelligence, Computer Vision, Foundation and Application of Electromagnetic Compatibility, Java as OOP.
- 10/2013-09/2017 **Bachelors of Science (BSci) in Information Technology**, *University of Education Lahore, Okara*, Pakistan, (GPA: 3.37/4.00)
- *Major Courses*: Artificial Intelligence, Data Mining, Human Computer Interaction, Cloud Computing
- 09/2007-09/2011 **Diploma of Associate Engineering (DAE) in Electronics**, *Quaid e Azam Polytechnic Institute*, Sahiwal, Pakistan, (Grade: B)
- *Coursework*: Microprocessors and Microcomputers, Telecommunications Systems.

RESEARCH INTERESTS

- Human-Computer Interaction/HCI in AI applications | 3D visualization of brain lesion segmentation | Ethical and inclusive AI development | Data mining for social good

EMPLOYMENT

- 07/2021-06/2023 **Visiting Lecturer & Research Assistant**, *University of Okara*, Pakistan
- Assisted research on facial expression analysis, addressing challenges in diverse populations, contributing to a publication in Applied Sciences journal.
 - Designed experiments for Pakistan's smart city initiative, integrating HCI principles to ensure technology solutions addressed real community needs.
 - Mentored three Master's students in AI-focused theses, guiding them in research methods and critical analysis of technology's societal impact.
 - Contributed significantly to the development of datasets detailing road cracks and potholes, sourced from local roadways.
- 03/2020-03/2021 **Software Developer**, *Softnotech Web & IT Solutions*, Pakistan
- Collaborated on user-centered design for web and desktop applications, emphasizing usability and accessibility
 - Conducted user research & usability testing to inform software development decisions
 - Facilitated effective team collaboration, leading to the successful development of innovative desktop software using Java, enabled a college to efficiently manage its records, enhancing operational efficiency and streamlining administrative processes
- 09/2019-01/2020 **Programming Intern**, *Engeekers*, China
- Demonstrated a consistent output of 30 lines of code daily, showcasing proficiency in Python for machine learning endeavors.
 - Diligently debugged 100+ lines of code daily, predominantly for JFrames, displaying detailed attention to detail and technical adeptness.

PUBLICATIONS

Healthcare Technology Letters	Ahmad, I., Rashid, J., "Autism Spectrum Disorder Detection using Facial Images: A Performance Comparison of Pretrained Convolutional Neural Networks," in <i>Healthcare Technology Letters</i> , 2024, https://doi.org/10.1049/htl2.12073 , (principal author)
CMC Journal	Muhammad R. Saeed., Ahmad, I., "Deep Learning Method to Detect the Road Cracks and Potholes for Smart Cities," in <i>Computers, Materials & Continua</i> , 2023, vol. 75, no.1, pp. 1863–1881, DOI:10.32604/cmc.2023.035287, (co-author)
Applied Sciences Journal	Sohail, M., Ali, G., Rashid, J., Ahmad, I., "Racial Identity-Aware Facial Expression Recognition Using Deep Convolutional Neural Networks," in <i>Applied Sciences</i> , 2022, Vol. 12(1), pp. 88, https://doi.org/10.3390/APP12010088 , (co-author)
Computer & Standards	Ahmad, I., Shang, F., "PIYN: Empowering Accurate and Real-Time Remote Sensing Target Detection with Enhanced YOLOv8," ((Pre-print))
MS Thesis	An Efficient and Fast Hybrid Deep Learning Model for Brain Tumor Detection based on MRI Images

SKILLS

Machine Learning	Classification– Neural Network, Naive Bayes, SVM, Regression– Linear Regression, Logistic Regression, KNN, Tree Based– Random Forest Packages– Scikit Learn, Numpy, Scipy, Scikit-Image, Pandas, Plotly
Deep Learning	Convolutional Neural Network, Recurrent Neural Network, GAN, YOLO, Faster CNN Packages– PyTorch, FastAI, TensorFlow
Programming	Python, Java, MATLAB, SQL, \LaTeX
Softwares	NetBeans, Spyder, Oracle DBMS, Weka, Adobe Photoshop
Languages	English, Hindi, Chinese
Others	Can write well-organized and structured manuscripts for publication.

FUNDING & AWARDS

Project Funding	Hunan Provincial Science and Technology Innovation Leader Project grant (\$2200) for "Deep Learning Method to Detect the Road Cracks and Potholes for Smart Cities"
Project Funding	Data and Artificial Intelligence Scientific Chair grant (\$1440) from Umm Al-Qura University for "Racial Identity-Aware Facial Expression Recognition Using Deep Convolutional Neural Networks"
PhD Fellowship (Covid Affected)	The Prestigious China Scholarship Council received total funding of \$47989 offered in 2021 at Central South University.
Master Fellowship	A prestigious government scholarship funded by China Scholarship Council, received a total funding of \$34482 from 2018 to 2021.
Fee waiver	Funded by University of Education, received a fee waiver for a semester on getting top scores from the department of 240 students in 2017.

VOLUNTEER POSITIONS

- Organized IT exhibitions, engaging with diverse community members to understand their technology needs and challenges
- Peer Reviewer: Serving as a peer reviewer for many prestigious journals, helping to gain valuable insights into cutting-edge research, enhance critical analysis skills, and boost academic reputation within the field of AI
- As Dr. Li Jiangfan's Teaching Assistant, delivered instructive lectures, facilitated engaging discussions, and designed assignments to enhance undergraduate computer science students' comprehension, active participation, and analytical thinking.