# **Muhammad Ahmed Zaki**

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# Objective

To pursue excellence in the domains of Artificial Intelligence and Machine Learning, making significant contributions to the advancement of academia and research in these fields. By actively working towards the betterment of society, I aim to utilize my skills and knowledge to drive meaningful impact and foster innovation in AI and ML.

### **Professional Experience**

Lecturer September 2022 to Present Department of Computer Science & IT NED University of Engineering & Technology, Karachi. Visiting Faculty May 2022 to July 2022 Thar Institute of Engineering, Sciences & Technology (TIEST), Mithi. Visiting Faculty November 2019 to February 2020 Government College of Technology, Hyderabad. Intern October 2019 to November 2019 Information & Communication Processing Center (MUET), Jamshoro. Intern June 2019 to July 2019 National Telecommunication Corporation, Hyderabad. Intern June 2018 to August 2018 Pakistan Telecommunication Corporation Limited, Hyderabad. June 2016 to July 2016 Intern Radio Broadcasting Corporation, Hyderabad.

# Education

Masters of Engineering (Computer & Information Engineering)	November 2021	(3.78/4.00 CGPA)
Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.		

**Thesis:** Disease Diagnosing in Onion Crop Using Neural Network

#### Bachelors of Engineering (Telecommunication Engineering) December 2018 (3.64/4.00 CGPA)

Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan. **Thesis:** Optical Character Recognition (Image to Text)

# **Selected Publications**

#### **Journal Papers**

- [1]. Z. Altaf, M. A Unar, S. Narejo, M. A. Zaki, and N. U. Din, "<u>Generalized Epileptic Seizure Prediction using Machine Learning Method</u>," Int. J. Adv. Comput. Sci. Appl., vol. 14, no. 1, pp. 502–510, 2023. (HEC Recognized Y Category)
- [2]. M. A. Zaki, S. Narejo, M. Ahsan, S. Zai, M. R. Anjum, and N. U. Din, "Image-based Onion Disease (Purple Blotch) Detection using Deep Convolutional Neural Network," Int. J. Adv. Comput. Sci.Appl ., vol. 12, no. 5, pp. 448–458, 2021. (HEC Recognized Y Category)
- [3]. M. A. Zaki, S. Narejo, S. Zai, U. Zaki, Z. Altaf, and N. U Din, "Detection of nCoV-19 from Hybrid Dataset of CXR Images using Deep Convolutional Neural Network," Int. J. Adv. Comput. Sci. Appl., vol. 11, no. 12, pp. 699–707, 2020, doi: 10.14569/ijacsa.2020.0111281. (HEC Recognized Y Category)
- [4]. U. Zaki, **M. A. Zaki**, and R. A. Shah, "Harmful Effects of 5G on Life with Possible Solution," Glob. Sci. J., vol. 8, no. 5, pp. 1–13, 2020.
- [5]. M. A. Zaki and U. Zaki, "Challenges of English Text Recognition from Natural Scenes," Glob. Sci. J., vol. 8, no. 4, pp. 1045–1054, 2020.
- [6]. U. ZAKI, D. N. HAKRO, M. MEMON, F. H. KHOSO, K. U. R. KHOUMBATI, M. A. ZAKI, M. HAMEED, G. NABI, "Dataset

of Urduud1k from Natural Scenes," SINDHUNIVERSITY Res. J., vol. 51, no. 04, pp. 595-600, 2019.

- [7]. M. A. ZAKI, S. ZAI, M. AHSAN, and U. ZAKI, "Development of an Android App for Text Detection," J. Theor. Appl. Inf.Technol., vol. 97, no. 20, pp. 2485–2496, 2019.
- [8]. M. A. Zaki, D. N. Hakro, M. Memon, U. Zaki, and M. Hameed, "Internet of Things Interface Using Augmented Reality an Interaction Paradigm using Augmented Reality," Univ. Sindh J. Inf. Commun. Technol., vol. 3, no. 3, pp. 135–140, 2019.
- [9]. U. Zaki, M. Memon, D. N. Hakro, K. U. R Khoumbati, M. Hameed, **M. A. Zaki** and G. Nabi, "Implementation challenges in Information Retrieval System," SINDHUNIVERSITY Res. J., vol. 51, no. 2, pp. 339–344, 2019.
- [10]. U. Zaki, D. N. Hakro, K. Khoumbati, M. A. Zaki, and M. Hameed, "Issues & Challenges in Urdu OCR," Univ. Sindh J. Inf. Commun. Technol., vol. 3, no. 1, pp. 42–49, 2019.

#### **Conference Papers**

- [1]. U. Zaki, **M. A. Zaki**, and S. Narejo, "Chest X-Ray Image-based COVID-19 Recognition using Modified Artificial Neural Network," 3rd International Conference on Computational Sciences and Technologies, MUET Jamshoro, 2022.
- [2]. K. Mahar, S. Narejo, and M. A. Zaki, "Bitcoin price prediction using Deep Learning Algorithm," 2nd International Conference on Computational Sciences and Technologies, MUET Jamshoro, 2020, vol. 2, pp. 56–60, doi: 10.1109/MACS48846.2019.9024772.

# **Professional Memberships**

Pakistan Engineering Council (Januaury 2019 - Present) Registration No. TELE/08092

# Workshops

- Attended a workshop on **Network Simulator** in August 2018 at Department of Telecommunication Engineering, Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.
- Attended a workshop on **LaTex** in December 2017 at Department of Telecommunication Engineering, Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.
- Attended a workshop on **Arduino** in March 2017 at Department of Telecommunication Engineering, Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.
- Attended a seminar "Huawei ICT Middle East Competition" in August 2018 at Department of Telecommunication Engineering, Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.

#### Conferences

- Attended 3rd International Conference on Innovations in Computer Science & Software Engineering (ICONICS'22) at NED University of Engineering & Technology, Karachi.
- Attended and presented paper 3rd International Conference on Computer Science & Technology in February 2022 at Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.
- Attended 2nd International Conference on Computer Science & Technology in February 2021 at Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.
- Attended 1st International Conference on Computer Science & Technology in April 2019 at Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.
- Attended 5th International Multi-Topic ICT Conference in April 2018 at Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan.

### **Technical & Personal Skills**

- Anaconda3
- Mathworks MATLAB and Simulink
- HFSS
- Adobe Photoshop
- NI's Multisim
- Cisco Packet Tracer
- Huawei eNSP
- WiTuners

- OptiSystem
- Proteus
- Network Simulator
- JabRef
- Mendeley
- LaTeX
- Netbeans (IDE)
- Eclipse (IDE)

- Arduino (IDE)
- Android Studio
- Dreamweaver
- CSS
- HTML
  - Java Script
  - Huawei NMS2000

### **Research Interests**

- Signal and Image Processing
- Internet of Things

### **Certificates & Training**

- > DeepLearning.AI TensorFlow Developer Specialization (07/2023)
- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning Credential ID: E8PVKJU7YGVK
- Convolutional Neural Networks in TensorFlow Credential ID: RD39MGTJEQ34
- Natural Language Processing in TensorFlow Credential ID: ZS8HRNR2SP4F
- Sequences, Time Series and Prediction Credential ID: XT59UKPTYSRC

#### Machine Learning Specialization (07/2023)

- Supervised Machine Learning: Regression and Classification Credential ID: XMK4CWUT5RDC
- Advanced Learning Algorithms
   Credential ID: 869ACFJ7MBVD
- Unsupervised Learning, Recommenders, Reinforcement Learning Credential ID: Y6PD6UA53XKW

#### > Data Science Specialization (07/2023)

- The Data Scientist's Toolbox Credential ID: 5HSPUU47ZY79
- Getting and Cleaning Data
   Credential ID: NRAG557ANCU5
- Exploratory Data Analysis Credential ID: 4HPWQBJ5ELSP
- Reproducible Research Credential ID: XZAMG3CQD98P
- Statistical Inference Credential ID: GAHHJDD5L5NM
- Regression Models
   Credential ID: 7WZ48GJWREBR
- Practical Machine Learning Credential ID: YAQW7XNM7TKD
- Data Science Capstone
   Credential ID: ZB663EFN8Y37
- **Courses Taught**
- Image Processing & Computer Vision (Postgraduate level course)
- Tools & Techniques for Data Science (Postgraduate level course)
- Object Oriented Programming (Undergraduate level course)
- Web Engineering (Undergraduate level course)
- Introduction to Computer Application (Undergraduate level course)
- Fundamental of Information Technology (Undergraduate level course)
- Artificial Intelligence & Exert System (Undergraduate level course)
- Computer Communication Networks (Undergraduate level course)

#### Languages

✓ English (Full Professional Proficiency)

✓ Urdu (Native or Bilingual Proficiency)

#### References

References available on request.

- 5G
   Deep Learning
- - Artificial Neural Networks

Metaverse

- Introduction to Embedded Machine Learning (07/2023) Credential ID: UVLQRH8DSLBG
- Artificial Intelligence (Deep Learning & Computer Vision focused) (05/2023)
- Automobile Hacking and Security v1.0
  Credential ID: UC-c82a4022-7227-4393-a4b9-b128820022ed
- Computer Hacking Forensic Investigator (09/2021) Credential ID: ECC4183652907
- Structuring Machine Learning Projects (07/2020) Credential ID: 5HXB5QZ289UV
- Technical Support Fundamentals (06/2020) Credential ID: AXP95GWJFYHX
- Cloud Computing Basics (Cloud 101) (05/2020) Credential ID: NPBYFT4W3HXU
- Support Vector Machines in Python (05/2020) Credential ID: UC-ca18fdb8-a3dd-4ff9-b58a-a83b67416760
- Artificial Neural Networks using Keras and Tensorflow in Python (04/2020) Credential ID: UC-e400925b-0117-4928-83ac-e1202c3f4478
- RF & Core Network Training Boot Camp (12/2017)
- Microsoft Office Specialist (11/2017)
- Credential ID: wxcFb-22LV
- Professional Development Training (08/2017)
- Fiber Optics Hands on Training (12/2016)
- Web Development (03/2016)