# **Curriculum Vitae**

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### **EDUCATIONAL QUALIFICATIONS**

### University

Degrees obtained	Institute	Major Subjects
M.Sc. (Computer Science)	University of Agriculture, Faisalabad.	Computer Science
M.S	National University of Science and Technology, Islamabad	Artificial Intelligence, Machine Learning
PhD (continued)	National University of Science and Technology, Islamabad	Artificial Intelligence, Machine Learning, Deep Learning

## **Work Experience:**

Position	Institute	Years
Lecturer	Department of Computer science, University of Agriculture, Faisalabad.	2014 - Onwards

### **COURSES TAUGHT**

Course Title: Object Oriented Programming, Digital Image Processing, Advanced Object-Oriented Programming, Visual Programming, Modern Programming Languages, Machine Learning, Computer Vision

#### RESEARCH

Title of research	Supervisor	Institution
Leaf Recognition Using Deep Convolutional Neural Network	Dr. Usman Akram	National University of Science and Technology, Islamabad.

# **PUBLICATIONS**

### (a) Research Papers:

Asaf, Z., Asad, M., Ahmed, S., Rasheed, W., & Bashir, T. (2014, December). Role based access control architectural design issues in large organizations. In 2014 International Conference on Open-Source Systems & Technologies (pp. 197-205).

Nishat, S., Asaf, M. Z., & Awan, F. R. (2022). FrameQR®-code-embedded Paper Sensors: One-click Screening Solution to Analyze Colorimetric Output and On-chip Test and Patient Information. Sensors & Materials, 34.

Asaf, M. Z., Rao, B., Akram, M. U., Khawaja, S. G., Khan, S., Truong, T. M., Truong & Abbasi, M. S. (2024). Dual contrastive learning based image-to-image translation of unstained skin tissue into virtually stained H&E images. *Scientific Reports*, *14*(1), 2335.

Asaf, M. Z., Rasul, H., Akram, M. U., Hina, T., Rashid, T., & Shaukat, A. (2024). A Modified Deep Semantic Segmentation Model for Analysis of Whole Slide Skin Images. Scientific Reports, 14(1), 23489.

Asaf, Z., Salam, A. A., Khan, S., Musolff, N., & Akram, M. U. (2024). E-Staining DermaRepo: H&E Whole Slide Image Staining Dataset. Data in Brief, 110997.

Salam, A. A., Asaf, M. Z., Akram, M. U., Ali, A., Mashallah, M. I., Rao, B., Khan, S., Rafiq, B., Sanabria, B., & Yousaf, M. H. (2025). Skin whole slide image segmentation using lightweight-pruned transformer. Biomedical Signal Processing and Control, 106, 107624. https://doi.org/10.1016/j.bspc.2025.107624

#### (b) Abstract published

Zeeshan Asaf, Khalil-ur-Rehman, Ali Arslan and M. Usman Akram, "Precision Agriculture Based Image Processing Method for Creating an Automatic Weed Recognition Neural Network Model", International Conference on Advances in Agricultural Resource Management, May 2017.

#### FINAL YEAR PROJECTS

- Let's Find: A cross-platform, web and mobile application, that uses Deep Learning (Facenet based One Shot Learning) to find missing children by facial recognition. The front end was developed in React Native and the python-based backend was deployed using Kubernetes and Docker. Project was covered by famous Pakistani News channel Samaa News and won cash awards as final year projects at two different occasions
  - o COMPPEC held at EME college NUST, ISLAMABAD
  - o INVOKE by Pakistan Science Foundation).
- ➤ **Project Maverick:** To counter the counterfeit, Maverick is a Blockchain based React Native cross platform mobile application that is designed to identify fake and counterfeit medicines in developing countries. The solution uses QR code or cheap NFC stickers to verify the product. Unique and SHA 256 secured string stored in QR code or NFC tag were verified through mobile app from manufacturer's record stored online on a blockchain database. Project was covered by AAP news Pakistan