Lahore, Pakistan

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## Education

M.S in Computer Science Lahore, Pakistan

University of Engineering and Technology Lahore, Lahore

3.78/4.0 CGPA - 94.25% 2018 - 2020

THESIS: ACRAL LENTIGINOUS MELANOMA DETECTION USING DERMOSCOPIC IMAGES AND CONVOLUTIONAL NEURAL NETWORKS

#### **B.S in Information Technology**

Sargodha, Pakistan

University of Sargodha, Sargodha

3.63/4.0 CGPA - 90% 2014 - 2018

FINAL YEAR PROJECT: DETECTION AND CLASSIFICATION OF EMERGENCY VEHICLES

## **Experience**

## Department of Computer Science, University of Engineering and Technology

Lahore, Pakistan
Mar 2021 - Present

TEACHING FELLOW

- Working as full time faculty member and teaching undergraduate courses (Theory+lab) .
- Assisting the senior faculty in designing course contents and writing proposals for research grants.
  Research the latest Deep Learning and Computer Vision technologies to solve real-world problems.
- Research the latest beep Learning and Computer vision technologies to solve real Helping and guiding final-year students in their Final Year Projects (FYPs).

## Bioinformatics Research Lab, Al-Khawarizmi Institute of Computer Sciences

Lahore, Pakistan Jan 2020 - Oct 2020

MS STUDENT

Worked with Dr. Muhammad Usman Ghani Khan on detection of rare and lethal skin cancer Acral Lentiginous Melanoma.
In this research project we developed a system which detects and predicts the probability of acral melanoma in dermoscopic images.

• Designed a DCNN architecture from scratch in Keras and Tensorflow to classify the skin cancer

#### Wizdojo Technologies, National Incubation Center

Lahore, Pakistan

COMPUTER VISION INTERN

Aug 2019 - Oct 2019

- · Worked with Dr. Umair Mateen Khan in his startup as a Computer Vision and developed a vehicles registration plate detection system.
- Collected, annotated and processed data and trained a custom deep learning model to detect and segment the vehicle registration plate.
- Built a small website for the startup using HTML/CSS and Boostrap and Word-press

## Department of Computer Science, Governament Islamia College Railway Road

Lahore, Pakistan

COPMUTER SCIENCE LECTURER

NOV 2018 - May 2020

- Taught following courses to undergraduate classes
- Operating Systems and Networks
- Programming and Intro to Databases

# Computer Vision & Machine Learning Lab, Al-Khawarizmi Institute of Computer Sciences

Lahore, Pakistan Sep 2018 - Oct 2018

DEEP LEARNING INTERN

• Built a small image classification neural network using Keras using cars dataset from Google Images

- Learnt about Deep Learning and Computer Vision Basics.
- Developed interfaces of classification systems using HTML/CSS and bootstrap

# Publications\_\_\_\_\_

- 1. "Acral Melanoma Detection using Dermoscopic Images and Convolutional Neural Networks", **Qaiser Abbas**, Farheen Ramza, Muhammad Usman Ghani Khan [Submitted to 'Visual Computing for Industry, Biomedicine, and Art']
- 2. "Detection and Classification of Malignant Melanoma using Deep Features of NASNet", **Qaiser Abbas**, Anza Gul, Aown Muhamamd [Submitted to '2021 International Conference on Computing, Computational Modelling and Applications']
- 3. "IoT Based Low-Cost Intelligent Surveillance System for Smart Home Security", Qaiser Abbas, Anza Gul, Maheen Jafer, Saqib Hassan [Submitted to 'Turkish Journal of Electrical Engineering and Computer Sciences']
- $4. \ \ "An efficient deep learning approach for lung cancer diagnosis using histopathological images", \\ \underline{\textbf{Qaiser Abbas}}, \\ Anza Gul \ [\underline{\textbf{Under Process'}}]$

# Projects\_\_\_\_\_

PROJECT LEADER January 2020

- Developed a melanoma skin lesion detection and segmentation system using Tensorflow and keras.
- · Used Mask R-CNN model and utilized transfer learning with ResNet50 on ISIC 2019 dataset to segment the melanoma lesions.

#### Firearms Detection and Classification using Deep Learning

Lahore, Pakistan

February 2020

PROJECT LEADER

- · Developed a complete Firearms detection and classification system using Tensorflow and keras library.
- Yolo v3 model along with transfer learning (ResNet101) was used and it was trained on IMFDB dataset to detect and classify the firearms.

#### **Emergency Vehicles Classification using Convolutional Neural Network**

Lahore, Pakistan

DEVELOPER

December 2019

- Developed an emergency vehicles classification system using a simple CNN architectrue.
- · Collected and annotated dataset and trained a Custom CNN model to detect and classify the vehicles.

## Technical Skills

SOME OF MY CORE TECHNICAL SKILLS INCLUDE:

- Python, C, C++
- Keras / TensorFlow / OpenCV
- Machine Learning and Vision
- Research and Development
- Wordpress / HTML / CSS / Bootstrap
- Ubuntu, Kali Linux

## Honors & Awards

2019	Excellence Scholarship, by DHA Lahore for 1st position in BS (120k PKR)	Lahore, Pakistan
2019	Fauji Foundation Excellence Award, by Fauji Foundation for 1st position in BS (30k PKR)	Mianwali,Pakistan
2018	Gold Medalist, BS in Information Technology	Sargodha, Pakistan
2015-18	Fauji Foundation Educational Scholarship, Got Scholarship throughout my undergraduate studies	Sargodha, Pakistan
2014-18	<b>Teaching Assistant</b> , Assisted teachers during BS in delivering lectures and marking quizzes	Mianwali, Pakistan
2014-18	Class Representative, Represented my class for four years during undergraduate studies	Mianwali, Pakistan

## Social Services

2016-18	<b>Blood Donation Society</b> , Arranged a blood donation society in University of Sargodha	Mianwali, Pakistan	
2018 -	<b>Promoting Education in Remote Areas,</b> Volunteer work to promote education in remote areas of Pakistan.	Lahore, Pakistan	
2018 -	Social Media Service, Social Media service to promote higher education in Pakistan	Lahore, Pakistan	
2016-18	Career Guidance Seminars, Arrangement of Career Counseling Seminars in University of Sargodha.	Mianwali, Pakistan	
2016-18	Freelancing Guidance Seminars, Arrangement of Freelancing guidance Seminars in University of Sargodha.	Mianwali, Pakistan	

# References \_\_\_\_\_

## · Dr. Muhammad Usman Ghani Khan

Professor

Department of Computer Science, University of Engineering and Technology Lahore, Pakistan Email - usman.ghani@uet.edu.pk

## · Dr. Sheikh Faisal Rasheed

Assistant Professor

Department of Computer Science, University of Engineering and Technology Lahore, Pakistan Email - shfaisal@gmail.com

#### · Malik Ghulam Sarwar

Program Coordinator, National Center of Excellence HEC, Pakistan Email - gsarwar@hec.gov.pk