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### **Education**

**M.S Computer Science** Lahore, Pakistan

University of Engineering and Technology Lahore

3.78/4.0 CGPA - 94.25% - TOP 10% 2018 - 2020

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

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

Sargodha, Pakistan

University of Sargodha

3.63/4.0 CGPA - 90% - GOLD MEDAL (CAMPUS)

2014 - 2018

FINAL YEAR PROJECT: IOT BASED LOW COST INTELLIGENT SURVEILLANCE SYSTEM FOR SMART HOME SECURITY

# Experience\_

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

Lahore, Pakistan Mar 2021 - Present

TEACHING FELLOW

• 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.
- Mentoring final-year students in their Final Year Projects (FYPs).

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

Lahore, Pakistan

MS STUDENT

Jan 2020 - Oct 2020

- 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 Intern 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 WordPress

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

Lahore, Pakistan

COPMUTER SCIENCE LECTURER

Nov 2018 - May 2020

- · Taught introductory undergraduate courses
- · Operating Systems and Networks
- Programming and Intro to Databases

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

Lahore, Pakistan

DEEP LEARNING INTERN

Sep 2018 - Oct 2018

- · 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. Qaiser Abbas, Farheen Ramzan, and Muhammad Usman Ghani. "Acral melanoma detection using dermoscopic images and convolutional neural networks." Visual Computing for Industry, Biomedicine, and Art 4.1 (2021): 1-12.
- "Detection and Classification of Malignant Melanoma using Deep Features of NASNet", Qaiser Abbas, Anza Gul [Under Rewiew at [Springer Nature Computer Science']
- 3. "IoT Based Low-Cost Intelligent Surveillance System for Smart Home Security", Qaiser Abbas, Anza Gul [Under Rewiew at 'Journal of Ambient Intelligence and Smart Computing']
- 4. "Machine Learning based Smart Network Intrusion Detection System for SMEs in Developing Countries", Qaiser Abbas, Sadaf Hina, Hamza Sajjad [Under Process']
- 5. "An efficient deep learning based system for automated pnenomina classification", Qaiser Abbas, Abqa Javed, Muhammad Irzam [Under Process']

**Projects** 

#### Melanoma Segmentation in dermoscopic images using Deep Learning

Lahore, Pakistan

January 2020

PROJECT LEADER

- 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

PROJECT LEADER

DEVELOPER

February 2020

- Developed a complete Firearms detection and classification system using TensorFlow and Keras.
- · Yolo v3 model along with transfer learning was trained on IMFDB + custom dataset to detect and classify the firearms.

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

Lahore, Pakistan

December 2019

- Developed an emergency vehicles classification system using a simple CNN architectrue.
- Trained a Custom CNN model to detect and classify the vehicles using own dataset.

# Technical Skills\_

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 |
|         |  |                    |

# Professional Services

| 2021 | <b>Reviewer</b> , Visual Computing for Industry, Biomedicine, and Art | Singapore      |
|------|---|----------------|
| 2021 | Reviewer, Informatics in Medicine Unlocked                            | United Kingdom |

# 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   |
| 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 \_\_\_\_\_

#### · Prof. Dr. Muhammad Usman Ghani Khan

Professor

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

#### · Prof. Dr. Muhammad Aslam

Professor

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

### · Dr. Sadaf Hina

Assistant Professor

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