

SHAHEER AHMAD

Department of Computer Science, Islamia College Peshawar, Pakistan · +92 305 2581389

shaheera011@gmail.com ·

<https://www.linkedin.com/in/imshaheer011/> ·

A self-motivated, passionate, honest, and responsible individual, in research activities.

OBJECTIVES

I aim to Contribute towards the wellbeing of others through progressive research & development activities.

EXPERIENCE

JUL 2022 – TO DATE

Social Media Influencer Project – SM3P, WITH DGIPR, GOVT KPK, PAKISTAN

Working in a government project to make a connection between public and government, and awareness purpose.

JUL 2022 – TO DATE

FREELANCER

Did Dataset Annotations, Machine Learning projects.

OCT 2021 – JUNE 2022

INTERNEE, NATIONAL CENTER OF ARTIFICIAL INTELIGENCE - PESHAWAR

Did Yolov5 based Fire detection and localization, Facial expression detector, Car accident dataset, Vehicles number plate detection & recognition, and Facial expression deployment with flask.

EDUCATION

SEPTEMBER 2021

Bachelor in Software Engineering, ISLAMIA COLLEGE PESHAWAR

MARKS OBTAINED: 3 . 4 9 out of 4.0 C.GPA (8 6 . 4 9 % - Grade: A)

Thesis Title: “Stagnant Water Semantic Segmentation Using Deep Learning”

AUGUST 2017

HSSC (Pre-Engineering SCIENCE GROUP), GOVT. POST GRAGUATE

COLLEGE, LAKKI MARWAT

MARKS OBTAINED: 7 7 5 out of 1100 (7 0 . 4 % - Grade: A)

JUNE 2015

SSC (SCIENCE GROUP), FAIZ MODEL HIGH SCHOOL, LAKKI MARWAT

MARKS OBTAINED: 9 4 5 Out of 1100 (8 5 . 9 % - GRADE: A1)

RESEARCH INTEREST

- Computer vision
- Machine learning
- Deep learning

SKILLS

- Attentive, Energetic and Diligent
- Excellent programming logic (solution oriented thinking)
- Programming regularly since 2020
- Image Processing in OpenCV, Python
- Machine Learning & Deep Learning with Tensorflow

PROJECTS

1. **Yolov5 - based Fire Detection and Localization in video surveillance applications:** A separate dataset was created from thousands of images that contain fire. For each image, we made a JSON file (which was then changed after to a text file that contained coordinates compatible with Yolov5 config file input). A pre-trained Ultralytics Yolov5 model was trained on that dataset with custom hyperparameter files. For localization, OpenCV was used in real-time video surveillance.
Role: Lead Member
2. **Stagnant Water Semantic Segmentation Using Deep Learning:** A model that detects standing water in images. The model used for segmentation of stagnant water is U-net.
Role: FYP
3. **Facial Expression Detection and Localization in video surveillance applications:** A model that detects six types of facial expression (using LeNet algorithm and OpenCv) including happy, sad, angry, normal, fear, and surprise.
Role: Lead Member
4. **Vehicles License Plate Detection & Recognition:** We prepared a dataset composed of thousands of images of cars that contained license plates. For each image, we made an xml file (changed after that to a text file that contained coordinates compatible with Darknet input config file, Ultralytics project repository is used to retrain the Yolov5 pretrained model) using a desktop application called Labellmg. Then we extracted the location of the license plate and passed it to the pytesseract for the recognition of characters and returned the licence plate number as a text.
Role: Lead Member
5. **Facial Expression Detection Deployment with Flask:** A custom-trained expression classifier is used and deployed with Flask (a microweb framework written in Python). This tool is still not available online.
Role: Lead Member
6. **Vehicles Accident Dataset:** A Dataset for a car accident detection model that will detect accidents involving vehicles under video surveillance. We also performed data annotation on the dataset in order to train the Yolov5 model.
Role: Team Member

PUBLICATIONS - In Progress

1. Naveed Abbas, **Shaheer Ahmad**: *Stagnant Water Semantic Segmentation*. **2023**; PP:1-13.

SCHOLARSHIPS

- Ehsaas Scholarship from Government of Pakistan (In Bachelor's, Availed - 2 Years)
- Diya Scholarship awarded on merit basis during HSSC

EXTRA-CURRICULAR ACTIVITIES

- District level champion at High School (in Football)
- General interest and participation in team sports.

REFERENCES

1. **Prof. Naveed Abbas**, HOD, (naveed.abbas@icp.edu.pk)
Department of Computer Science, Islamia College Peshawar, Pakistan
2. **Mr. Mansoor Nasir**, Lecturer, (mansoornasir@icp.edu.pk)
Department of Computer Science, Islamia College Peshawar, Pakistan