

Muhammad Ali Haider

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EDUCATION

Bachelor of Engineering in Electrical Engineering 2016 – 2020

National University of Sciences and Technology (NUST), H-12, Islamabad

Cumulative GPA: 3.73/4.00

Honors/Awards: NUST merit-based scholarship for scoring a semester GPA over 3.5 (5-time recipient)

PUBLICATIONS

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- Hassan Aqeel Khan, **Muhammad Ali Haider**, Hassan Ali Ansari, Hamna Ishaq, Amber Kiyani, Kanwal Sohail, Muhammad Muhammad, and Syed Ali Khurram. "Automated Feature Detection in Dental Periapical Radiographs using Deep Learning." *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology*, 2020

EXPERIENCE

Machine Learning Engineer | Red Buffer, Islamabad Oct 2020 – Jul 2022

- Trained machine learning models for predictive tasks
- Developed and deployed APIs to integrate model functionalities into websites and mobile applications
- Converted client product requirements into engineering solutions

Research Assistant | Signal Processing and Machine Learning Lab (SIGMA), NUST Jun 2019 – Sep 2019

- Reviewed research papers involving the application of machine learning to biomedical imaging
- Evaluated performances of 8 deep learning-based image segmentation models on a dental radiograph dataset
- Assisted colleagues with machine learning projects pertaining to computer vision

Research Assistant | Computer Vision and Machine Learning Lab (CVML), NUST Sep 2018 – Jan 2019

- Reviewed academic literature and presented paper reviews for 2 projects:
 - Extraction of Emotions from Audio Signals for Facial Animation
 - Crowd Simulation using Reinforcement Learning

PROJECTS

Automatic Safety Violation Detection on CCTV Footage Python, Pytorch, AWS

- Trained and compared popular object detection models on a custom dataset
- Wrote logic to detect safety violations using relevant object bounding box predictions

Binary Semantic Segmentation on Dental Images Python, Keras, Tensorflow, AWS

- Segmented Leukoplakia instances with over 80% segmentation accuracy on a dataset of only 88 dental images

EXTRACURRICULAR ACTIVITIES

External Relations Manager | NUST Community Services Club (NCSC) Sep 2017 – Sep 2018

- Negotiated agreements and managed correspondence with event sponsors
- Managed logistics and planning for blood donation drives and eye camps

Volunteer | The Citizens Foundation (TCF) Jun 2017 – Jul 2017

- Served 40 hours as a preschool teacher for children from underprivileged communities at TCF school

Co-head | See it Say it Stop it (SSS) Feb 2016 – Sep 2016

- Spread awareness about harassment issues in the society through social media and outreach events

SKILLS & INTERESTS

Skills: Python; Numpy; Pandas; Keras; Tensorflow; Pytorch; Flask; Docker; Kubernetes; MATLAB; AWS; Excel; git

Interests: Volleyball, Combat Sports, Video games, Fitness