MUHAMMAD ALI SHAFIQUE

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RESEARCH INTERESTS

Machine Learning and Edge Computing.

EDUCATION

Ph.D. student in Electrical and Computer Engineering *January 2022 - Present*
Kansas State University, Manhattan KS
Advisors: Arslan Munir and Don Gruenbacher

M.S. in Electrical Engineering *January 2016 - November 2017*
University of Engineering and Technology Lahore, Pakistan

B.S. in Electrical Engineering *October 2011 - May 2015*
University of Engineering and Technology Lahore, Pakistan

WORK EXPERIENCE

Graduate Research Assistant in ISCAAS Lab *January 2022 - Present*
Kansas State University, Manhattan KS
Supervisor: Arslan Munir

Faculty instructor (Lecturer) *March 2018 - December 2021*
University of Engineering and Technology Lahore, Pakistan

Graduate Teaching Assistant *August 2016 - August 2017*
University of Engineering and Technology Lahore, Pakistan

PROJECTS & RESEARCH

Efficient inference of deep learning models on edge devices
Major Project *Present*

· It includes low latency and high throughput inference on edge devices with negligible effect on accuracy. This project covers the implementation of optimized different deep learning model, the use of tensor cores and GPU profilers such as Nsight tools, tensorboard profilers and nvprof.

Development of the airline baggage scanning system using deep learning
Mini Project *June 2020 - August 2021*

· This project is aimed to compare the performance of different deep learning detection models on X-Ray images. The dataset used for this purpose is SIXRAY dataset.

EXTRA-CURRICULAR ACTIVITIES

Oxford ML Summer School Online *Summer 2022*
AI for Global Goals in partnership with CIFAR and the University of Oxford's Deep Medicine Program.

Online Courses Certifications

· Completed specialization in deep learning by Dr. Andrew Ng, on coursera *April 2020*
· Completed course on machine learning by Dr. Andrew Ng, Stanford university on coursera *March 2019*
· Nonlinear dynamics: mathematical and computer approaches grade 94% Santa Fe Institute *December 2018*
· Publons academy practical peer review course *December 2018*

AWARDS

- Selected for Fulbright Scholarship for four years Ph.D. program.
- Senior year project was selected as "Top Ten best projects in 2015" in the Department of Electrical Engineering, University of Engineering and Technology, Lahore, Pakistan.
- Highest CGPA in 3rd semester of undergraduate.

STUDENT ACTIVITIES

- Selected as a member of IEEE-Eta Kappa Nu (IEEE-HKN) K-State chapter, the honor society of IEEE, promotes excellence in the profession and in education with ideals of scholarship, character, and attitude.
- Participated in an international cultural week at Kansas State University.
- Volunteer for HIS K-State events (Helping international students)
- Outstanding and valued volunteer facilitator of IET On campus UET Lahore

TEACHING

Faculty instructor, University of Engineering and Technology Lahore

- Programming Fundamentals *Spring 2021*
- Industrial Electronics *Fall 2019*
- Control Systems *Spring 2020*
- Microprocessor Systems Lab *Spring 2018*
- Digital System Design *Fall 2016*

RELEVANT SKILLS

Python, C, C++, TensorFlow, Keras, Pytorch, Matlab, and LabVIEW