

# Syed Muhammad Atif

SOFTWARE DEVELOPER · RESEARCH FELLOW

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## Education

### PAF-KIET (Karachi Institute of Economics & Technology)

Karachi, Pakistan

PH.D. IN COMPUTER SCIENCE

CGPA 3.92

- Under HEC Indigenous PhD Fellowship program.

### UIT (Usman Institute of Technology/Hamdard University)

Karachi, Pakistan

M.S. IN COMPUTER NETWORKS & COMMUNICATION

CGPA 3.89

- Silver medalist in his batch.

### SSUET (Sir Syed University of Engineering and Technology)

Karachi, Pakistan

B.S. IN COMPUTER ENGINEERING

CGPA 2.99

## Skills

**Programming** Python, MATLAB, C/C++, JAVA, PHP, LaTeX  
**Web** Bootstrap, CodeIgniter, Javascript, JQuery, HTML5, CSS  
**Languages** English, Urdu, Sindhi

## Experience

### Department of Computer Science & Information Technology, Sir Syed University of Engineering & Technology University

Karachi, Pakistan

ASSISTANT PROFESSOR

Nov. 2024 - To Date.

- Conducting assigned courses of undergraduate programs of Computer Science and Information Technology.
- Supervising Final Year Projects of Software Engineering Program.
- Participating in research funded projects.
- Conducting academic researches maturing into impact factor publications.
- Other administrative duties.

### Department of Computer Science & Software Engineering, Ziauddin University

Karachi, Pakistan

ASSISTANT PROFESSOR

Jan. 2023 - Oct. 2024.

- Conducting assigned courses of undergraduate programs of Software Engineering and Computer Science.
- Supervising Final Year Projects of Software Engineering Program.
- Participating in research funded projects.
- Conducting academic researches maturing into impact factor publications.
- Other administrative duties.

### NCBC, HEC, Pakistan under funded project "Hetro Cloud".

Karachi, Pakistan

AI DEVELOPER

Jan. 2021 - Dec. 2022.

- Develop a scalable face recognition software that deployed on Cloud.

### Steps Ahead Pvt. Ltd.

Karachi, Pakistan

WEB DEVELOPER

May. 2019 - Oct. 2020

- Implemented an asset census system which is web based real time highly dynamic multi-purpose system integrated with an Android application that performs asset census. A web based reporting tool is also integrated with this web application to analysis census results from different business angles
- Implement a damage control and management web based system. It is web based application integrated with an Android application for business damage, monitoring and control.

## Department of Electrical Engineering, PAF Karachi Institute of Economics & Technology.

Karachi, Pakistan

### RESEARCH/TEACHING ASSISTANT

Aug. 2018 - Apr. 2019

- Assist Head of Department of Electrical Engineering as teaching assistant.
- Check assignment and Quizzes.
- Appear as Guest speaker in MS/PhD class.
- Conduct research under "Network Tomography Lab" headed by Dr. Sameer Qazi (HOD Elec. Engg.). During the tenure, I was able to publish a IEEE conference and ISI impact factor research publications.

## Department of Computing and Technology, Indus University.

Karachi, Pakistan

### LECTURER

Feb. 2016 - Feb. 2018

- Conduct lectures, check assignment and mid-term/final papers.
- Supervise Final Year Projects.
- Supervise ICT FYP funded final year project "Raspberry Pi3 based Wifi Router".

## Sybex System.

Karachi, Pakistan

### WEB DEVELOPER

Sep. 2015 - Feb. 2016

- Work on cancer patient analysis system
- Work on a online shopping cart portal.

## DTC System.

Karachi, Pakistan

### JAVA DEVELOPER

Jul. 2014 - Mar. 2015

- Work on a Tokyo stock exchange market prediction system.

## Honors & Awards

2016 **Secure**, Scholarship of HEC under Indigenous PhD. Fellowship Program

Islamabad,

Pakistan

2016 **First Place**, Entry Test for PAF-KIET PhD student with 89%

PAF-KIET, Karachi,

PAKistan

2011 **Second Place (Silver medalist)**, MS Program, UIT

Karachi, Pakistan

## Research Fundings

2021-22 **Secure**, NCBC Hetro Cloud, a \$100k research grant by NCBC, HEC, Pakistan.

Islamabad,

Pakistan

2017-20 **Secure**, HEC Indigenous PhD. Fellowship Funding PIN:315-13358-2EG3-204

Islamabad,

Pakistan

2016-21 **Part of**, European Research Council Research Project COLORAMAP (ERC starting grant No:679515)

Mons, Belgium

2018 **Secure**, ICT FYP Funding for final year project titled "Raspberry Pi3 based Wifi Router"

Karachi, Pakistan

## Publications (Last Five Years)

### Accelerated SVD-based initialization for nonnegative matrix factorization

Computational and Applied

Mathematics

FLAVIA ESPOSITO, SYED MUHAMMAD ATIF, AND NICOLAS GILLIS

September. 2024

### Multi-kernel fusion for RBF neural networks

Neural Processing Letters

SYED MUHAMMAD ATIF, SHUJAAT KHAN, IMRAN NASEEM, ROBERTO TOGNERI, MOHAMMED BENNAMOUN

June. 2022

### Structured Nonnegative Matrix Factorization for Traffic Flow Estimation of Large Cloud Network

Computer Networks

SYED MUHAMMAD ATIF, SAMEER QAZI, NICOLAS GILLIS AND IMRAN NASEEM

Oct. 2021

### Why Is Internet of Autonomous Vehicles Not As Plug And Play As We Think? Lessons To Be Learnt From Present Internet and Future Directions

IEEE Access

SAMEER QAZI, FARAH SABIR, BILAL A. KHAWAJA, SYED MUHAMMAD ATIF AND MUHAMMAD MUSTAQIM

Jul. 2020

**SCRAS Server-Based Crosslayer Rate-Adaptive Video Streaming over 4G-LTE for UAV-Based Surveillance Applications**

MUHAMMAD NAVEED<sup>1</sup>, SAMEER QAZI, SYED MUHAMMAD ATIF<sup>2</sup>, BILAL A. KHAWAJA AND MUHAMMAD MUSTAQIM

*MDPI Electronics*

*Aug. 2019*

**Improved SVD-based initialization for nonnegative matrix factorization using low-rank correction**

SYED MUHAMMAD ATIF, SAMEER QAZI AND NICOLAS GILLIS

*Pattern Recognition Letters*

*May. 2019*

**A Novel Compressed Sensing Technique for Traffic Matrix Estimation of Software Defined Cloud Networks**

SAMEER QAZI, SYED MUHAMMAD ATIF AND MUHAMMAD BILAL KADRI

*KSII TIS*

*Oct. 2018*

**First Elephants then Mice: A Two-stage Robust Estimation Technique for Traffic Matrix in Large Cloud Networks in Presence of Over Dispersion**

RASHIDA A MEMON, SYED MUHAMMAD ATIF AND SAMEER QAZI

*TENCON 2018*

*Oct. 2018*

**Tri-Compress: A Cascaded Data Compression Framework for Smart Electricity Distribution Systems**

SYED MUHAMMAD ATIF, ANEES AHMED, SAMEER QAZI

*Tech Forces*

*Jul. 2018*

**Singular valued differential link count linear estimator for traffic matrix of large cloud computing networks**

SYED MUHAMMAD ATIF AND SAMEER QAZI

*IEEE INTELLECT 2017*

*Nov. 2017*