

# SAQIB SARWAR

2/265A Sector L, Aashiyana, Lucknow. UP. India. 226012

9532053622 | saqib@cse.iitk.ac.in | saqib-sarwar.github.io | github.com/saqib-sarwar | SSK | linkedin.com/in/saqib-sarwar-3b26a5222 | k saqibsarwar | Saqib Sarwar

“And your Lord never forgets.”

## Personal Profile

I am a doctoral student with Prof. Piyush Rai in Dept. Of Computer Science & Engineering at IIT Kanpur. I work in the area of general machine learning, deep learning, computer vision and natural language processing. I am a recipient of the prestigious Visvesvaraya PhD Fellowship. Prior to joining IIT Kanpur, I worked as a Project Associate II on a DST sponsored project funded by C3iHub. I have completed my Master's and Bachelor's from Dept. Of Computer Engineering at AMU.

## Education

### Indian Institute of Technology Kanpur

PhD in Computer Science and Engineering

- Recipient of Visvesvaraya PhD Fellowship

Kanpur, India

Jan 2023 - Current

### Aligarh Muslim University

M.Tech in Computer Science and Engineering

- Graduated with Distinction
- M.Tech Thesis - "Risk factors classification for Appropriate Screening of Cervical Cancer."

Aligarh, India

Aug 2019 - Dec 2021

### Aligarh Muslim University

BTech in Computer Engineering

- Graduated First Division

Aligarh, India

Aug 2013 - June 2017

### Lucknow Public School

High School

- Passed with Distinction
- Specialised in Physics, Chemistry, and Maths with Computer Science

Lucknow, India

Apr 2009 - Apr 2010

## Work Experience

### Institute of Engineering and Technology

Project Associate II

- Designed a visualisation module to perform comparative univariate & bivariate analysis and multivariate correlation between real and synthetic data.
- Implemented state-of-the-art Copula and GAN models for synthetic data generation.
- Technical Skills:** Python with PyTorch, NumPy, Matplotlib, Seaborn, Pandas, Scikit-learn, Ubuntu Linux, Git, VS Code.
- Soft Skills:** Time Management, Communication, Presentation skills.

Lucknow, India

Apr 2022 - Dec 2022

### String Social Networks Pvt. Ltd.

Android Developer

- Developed News based social media app NewsGallery on MVVM pattern.
- Technical Skills:** Java, Kotlin, Retrofit, LiveData, ViewModel, Push Notifications, Glide, Coroutines, Git, Android Studio.
- Soft Skills:** Teamwork, Time Management, Communication.

Delhi, India

July 2017 - June 2019

## Academic Experience

### Indian Institute of Technology Kanpur

Teaching Assistant

- CS253: Software Development and Operations (2024, 2023)
  - Successfully organized an online [Machine Learning Competition](#) on Kaggle
- CS771: Intro to Machine Learning (2024, 2023)

Kanpur, India

Jan 2023 - Apr 2023

### Aligarh Muslim University

Teaching Assistant

- Network and Embedded Systems Lab

Aligarh, India

Aug 2019 - Dec 2019

# University Projects

<b>Hindi to English Machine Translation</b> Indian Institute of Technology Kanpur <ul style="list-style-type: none"><li>Developed a Machine translation model based on Transformers to translate English Sentences to Hindi</li><li>Achieved a decent BLEU score of 0.15 for hindi-english translation</li></ul>	Kanpur, India Apr 2023
<b>Sentiment Analysis</b> Indian Institute of Technology Kanpur <ul style="list-style-type: none"><li>Designed and implemented various sentiment analysis models using FastText, RNNs and LSTM.</li></ul>	Kanpur, India Apr 2023
<b>Plant Leaves Disease Detection and Classification</b> Indian Institute of Technology Kanpur <ul style="list-style-type: none"><li>Used State of the art Image classification models Resnet, EfficientNet, MobileNetV3 for plant disease detection.</li><li>Created a custom dataset of healthy and unhealthy plant leaves in real life conditions with 8 species and 16 classes.</li><li>Used Visual AI methods Grad-CAM, Grad-CAM++, ScoreCam to explain model performance</li></ul>	Kanpur, India Mar 2023 - Apr 2023

# Skills

<b>Programming</b>	Python (Pandas, PyTorch, NumPy, Scikit-learn. etc.), Java, C/C++, Kotlin, SQL.
<b>Miscellaneous</b>	Linux, $\LaTeX$ (Overleaf), Android Studio, VS Code, Microsoft Office, Firebase, Git.
<b>Soft Skills</b>	Time Management, Teamwork, Problem-solving, Logical Thinking, Presentation.

# Achievements

2023	<b>Recipient</b> , Visvesvaraya PhD Fellowship	India
2022	<b>(196/300) JRF</b> , UGC NET	India
2020	<b>PGT</b> , HTET CS	India
2018	<b>Rank 28</b> , JEST (IMSc)	India
2017	<b>Rank 32</b> , JEST (IMSc)	India
2017	<b>98 percentile</b> , GATE CSE	India

# Publications

Simple and Scalable Federated Learning with Uncertainty via Improved Variational Online Newton Shivam Pal, Aishwarya Gupta, Saqib Sarwar, Piyush Rai <i>OPT 2024: Optimization for Machine Learning</i> (2024). 2024
Predicting Influent and Effluent Quality Parameters for a UASB-Based Wastewater Treatment Plant in Asia Covering Data Variations during COVID-19: A Machine Learning Approach Parul Yadav, Manik Chandra, Nishat Fatima, Saqib Sarwar, Aditya Chaudhary, Kumar Saurabh, Brijesh Singh Yadav <i>Water</i> 15.4 (2023) p. 710. 2023
Qualitative and Quantitative Evaluation of Multivariate Time-Series Synthetic Data Generated Using MTS-TGAN: A Novel Approach Parul Yadav, Manish Gaur, Nishat Fatima, Saqib Sarwar <i>Applied Sciences</i> 13.7 (2023) p. 4136. 2023

# Certifications

Nov 2022	<b>Deep Learning: Image Recognition</b> , LinkedIn Learning
Nov 2022	<b>SQL for Data Analysis</b> , LinkedIn Learning
Oct 2022	<b>Data Science with Python</b> , Skillup by Simplilearn
May 2022	<b>Computer Vision</b> , Kaggle
May 2022	<b>Intro to Deep Learning</b> , Kaggle

# Interests

<b>Photography</b>	Though I do not have a professional camera, some of my decent snaps can be found on Instagram <a href="#">here</a> .
<b>Altruism</b>	I like contributing in different venues of life. One such example is being a Google Local Guide (Level 9).
<b>Badminton</b>	My interest in this sport began during my first year in bachelors. Since then, I have learned a lot.