

# AATIF NISAR DAR

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[aatifnisar01.github.io](https://aatifnisar01.github.io), [LinkedIn](#), [Medium](#), [GitHub](#)

## RESEARCH INTERESTS

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Human-centered computing, FATE (fairness, accountability, transparency, and ethics), AI for Social Good, and Computer Vision.

## ACADEMIC QUALIFICATIONS

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### Master of Science in Computer Science

2020 - 2022

South Asian University, New Delhi, India

CGPA: 7.87/9.0 (Second Rank)

Relevant Courses: Mathematical Topics on Computer Science, Artificial Intelligence, Data Mining, Machine Learning, Linear Programming, Advanced Data Structures & Algorithms.

### Bachelor of Science (Honours) in Computer Science

2017 - 2020

University of Delhi, New Delhi, India

CGPA: 7.70/10.0

## EXPERIENCE

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### Research Experience

#### Project Scientist, IIT (Indian Institute of Technology), Delhi.

Jun '22 - Present

(Prof. Chetan Arora and Prof. Nandana Sengupta)

- Working on the project “Enhancing India’s Science, Technology, and Innovation Policy Analysis Capabilities” in the Vision Lab at the Indian Institute of Technology, Delhi.
- Investigating possibilities of automated estimation of household level economic variable – income and assets, typically measured using a detailed household survey.

#### (Master’s Dissertation) Generative Adversarial Networks and its Applications, South Asian University.

May '21 - May '22

(Prof. Reshma Rastogi)

- Executed GAN on MNIST Digit dataset and MNIST Fashion dataset with Self Attention Module and Spectral Normalization in both Generator and Discriminator. Added TTUR (Two Time Scale Update) to stabilize the training of the GAN.
- Implemented CycleGAN, Pix2PixGAN, StyleGAN, SMIT, and AttentionGAN on the CelebA dataset.
- Outcome of my dissertation was a novel architecture called MLGAN (Multi-Label Generative Adversarial Network), which was designed to address the challenge of data imbalance in multilabel datasets.

### Industry Experience

Prevent Gun and Gang Violence Internship, **Omdena-Iraq Local Chapter**,

Sept '21 - Oct '21

Business and Data Analytics Internship, **The Sparks Foundation**

Aug '21 - Sep '21

Big Data and ML Internship, **Rani.ai**

Aug '21 - Oct '21

## PUBLICATIONS

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### Conference Proceeding

“Economic Status Prediction Using Deep Learning on Household Images,” with Prof. Chetan Arora and Prof. Nandana Sengupta. (Working Paper)

**Aatif Nisar Dar**, Reshma Rastogi, “MLGAN: Addressing imbalance in multilabel learning using generative adversarial networks,” [ICETCI 2023](#). (To Appear)

## Journal (Lightly Peer-reviewed)

**Aatif Nisar Dar**, “Principal Component Analysis,” Global Scientific Journal, GSJ: Volume 9, Issue 7, July 2021, Online: ISSN 2320-9186.

## Online Articles

**Aatif Nisar Dar**, “How to Choose the Best Classification Model,” “Partial Multi-Label GANs,” and “Image-To-Image Translation via Generative Adversarial Networks (GANs),” [Medium](#).

## **AWARDS AND HONORS**

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**Best Presenter Award** at the ICETCI 2023 conference for the paper entitled “MLGAN: Addressing Imbalance in Multilabel Learning Using Generative Adversarial Networks.” *21-23 Sept '23*

Secured a **Travel Grant** to present a poster at the IndoML Conference held at IIT Bombay. *Upcoming*

Member of **AISCF** (AI Safety Careers Fellowship), enhancing understanding of AI systems and safety measures. *Current*

Second position at **Hackathon** organized by the Department of Computer Science, Ramanujan College, University of Delhi. *Feb '20*

Second position for Essay Writing Competition on the topic ‘No Voter to be Left Behind,’ Chief Electoral Officer. *May '18*

## **PROFESSIONAL SERVICES**

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Students Union Representative at Computer Science Department of Keshav Mahavidyalaya, University of Delhi. *Sept '18 - Sept '19*

Secretary at NSS (National Service Scheme). *Aug '17 - Aug '19*

Attended Ethical Hacking Workshop at DTU (Delhi Technological University). *Feb '18*

Engaged in MUN (Model United Nations) activities at Jamia Millia Islamia University. *Oct '18*

## **SKILLS**

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### **Proficient in:**

Python, Computer Vision, Generative Adversarial Networks GANs (Master’s Thesis), Natural Language Processing, C++, Machine Learning, Neural Networks, Data structures and Algorithms, Data mining, Linux, and Latex.

### **Familiar with:**

Matlab, R, Java, Big Data (PySpark), PHP, HTML, CSS, and JavaScript.

## **REFERENCES**

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1. Nandana Sengupta, Professor of Public Policy, IIT Delhi, Email: [nandana@iitd.ac.in](mailto:nandana@iitd.ac.in)
2. Chetan Arora, Professor of Computer Science, IIT Delhi, Email: [chetan@cse.iitd.ac.in](mailto:chetan@cse.iitd.ac.in)
3. Reshma Rastogi, Professor of Computer Science, South Asian University, Email: [reshma.khemchandani@sau.ac.in](mailto:reshma.khemchandani@sau.ac.in)