

## Sanyam Jain

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GitHub <https://github.com/s4nyam>



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### Education

Year	Qualification	University	Percentage/CGPA
Aug 2020	Direct PhD, Quantum Information and Computation	Indian Institute of Technology, Jodhpur	7.89 (current)*
2020	GATE	Indian Institute of Technology, Delhi	94.16%ile among 97481 test-takers
2015-19	Bachelor of Technology in Computer Science and Engineering	University of Petroleum and Energy Studies, Dehradun	77.50%
2014-15	HSSC (Class 12 <sup>th</sup> )	CBSE (SPS, Ajmer)	77.40%
2012-13	SSC (Class 10 <sup>th</sup> )	CBSE (St Paul's Sr. Sec School, Banswara, Rajasthan)	9.6 CGPA

### Projects

#### 1. Deep Visualization of Catastrophic Forgetting in Continual Learning Setup and Mitigating it.

This project was part of the Advanced Machine Learning course (2021) under the guidance of Dr. Mayank Vatsa. In this project, we discovered a novel mechanism to mitigate catastrophic forgetting by feeding saliency maps and encouraging the model to understand the pieces of evidence and explanations that help in building long-term remembrance in a continual learning setup. <https://bit.ly/s1proj>

#### 2. Reproducing results of Meta-Learning with Implicit Gradients (iMAML)

This was a mini project (2021) where I learned about learning with small data. Essentially we want our model to classify with large prior experience and small training knowledge because you don't have the luxury of having huge training data. <https://bit.ly/s4proj>

### 3. Analyzing and Improving the Image Quality of StyleGAN

This project was part of the Deep Learning class (2020-21) as paper implementation and reproducing results with new datasets under the guidance of Dr. Mayank Vatsa. Performed novel GAN training for HELEN Dataset and Clothing Dataset with FID and PPL metrics. <https://bit.ly/s5proj>

### 4. Study of Nature of Different Adversarial Attacks and Impact of Different Data Augmentation Techniques on Robustness

This project was part of the Dependable AI course under the guidance of Dr. Richa Singh. Data augmentation training with the addition of adversarial training to get robust models, compare the robustness of these models against different attacks, to understand what type of training is more helpful for defense against some specific attacks. <https://bit.ly/s6proj>

### 5. Quantum Key Distribution

This project was part of the Cryptography (2021) course under the guidance of Dr. Somitra K. Sanadhya where we learned about several protocols and implementation of BB84, B92, E91. In addition, also studied the threats to blockchain technology in the quantum realm. <https://bit.ly/s8proj>

## Experience

### 1. Machine Learning Class Teaching Asst. (Jan 2022 – April 2022)

### 2. NVIDIA DLI Teaching Asst. (Aug 2021)

Certification workshop for “Fundamentals of Deep Learning”

### 3. Google Actions and Alexa Skills builder (May 2018 to May 2020)

Built several Alexa skills and Google actions as self-employed at <https://keyringcorp.in>. Part of AWS Activate startup for the period of 2021-23.

### 4. Software Engineering Intern at YellowAnt Inc. (May 2018 to Aug 2018)

REST API and Django

## Core Skills

Programming Languages	Python, Java, NodeJS and C
Machine Learning Stacks & Libraries	TensorFlow, Pytorch, Pandas, Numpy, Matplotlib, Sklearn, cv2, seaborn, cleverhans, qiskit, pennylane
Databases	Sql (MySQL), NoSQL(Firebase Database)

### Personal Details

Date of Birth	:	April 28, 1997
Gender	:	Male
Nationality	:	Indian
Permanent Address	:	5B Bahubali Colony, Banswara, RJ
Language Proficiency	:	English (IELTS 7), Hindi (Native)

I solemnly declare that all the above-mentioned information is correct.