

# Aryan Gupta

ML ENTHUSIAST · OPEN SOURCE DEVELOPER

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“The only way to do great work is to love what you do.”

## Summary

A sophomore pursuing a degree in Electrical Engineering at IIT Roorkee, with a passion to contribute to Open-Source repositories and learning about Deep Learning systems. Experience in research on AI security and Quantum computing. Enjoys participating in hackathons and collaborating with others. Proficient in utilizing Linux and OS X, with a particular interest in Linux distributions. Excited to continue growing and learning in the field of Deep Learning and Artificial Intelligence.

## Work Experience

### Pytorch-Ignite

OPEN SOURCE DEVELOPER

Remote

Dec. 2022- Present

- Added a Super Resolution Example to the main repository
- Added some enhancement features and worked on CI related bugs

### Indian Institute of Technology Roorkee

PYTHON DEVELOPER AND RESEARCH INTERN

Roorkee, Uttarakand, India

Oct. 2022 - Dec. 2022

- Worked under Prof. Deep Kiran and Prof. Tarun to develop an optimiser in Python(Qiskit and AWS Bracket) that can solve electrical systems
- Conducted tests on AWS Bracket platform for various optimizers and reviewed their performance

## Projects and Hackathons

### ML Repo Challenge 2022-23

REPRODUCED PAPER ON "DOUBLE SAMPLING RANDOMIZED SMOOTHING"

Remote

Oct. 2022 - Feb. 2023

- First author of the paper [Re]DSRS.
- The paper was rejected but we got very positive reviews from the Area Chair and a score of 21/30 in the evaluation.
- Worked on experiments surrounding the main paper which were appreciated by original authors, notably Assistant Prof. Bo Li, UIUC

### ESRGAN for Indian Space Research Organization(ISRO)

PROBLEM STATEMENT IN INTER IIT TECH MEET 11.0

India

February 2023

- Received Bronze Medal and 5th position overall in the problem statement overall among 23 IITs
- Worked on Enhanced Super Resolution GANs to convert low resolution images into higher resolution as captured by Chandrayaan-2 orbiter

### Social Summer of Code Hackathon

PARTICIPANT

India

July 2022 - Oct. 2022

- Worked on Django and Flask websites, Deep Learning and Computer Vision Projects, Yolo V5 architecture
- Secured 14th position among 200 developers

## Education

### Indian Institute of Technology Roorkee

B.TECH. IN ELECTRICAL ENGINEERING

Roorkee, Uttarakand, India

Oct. 2021 - Present

- Got a Cumulative Grade Point Average(CGPA) of 8.44 by the end of the 3rd semester

## Achievements & Honours

2023	<b>Bronze Medal</b> , Inter IIT Tech Meet 11.0	India
2022	<b>14th Place</b> , Social Summer of Code 2022 Hackathon	India
2021	<b>AIR 1751(0.1 Percentile)</b> , JEE Advanced Exam 2021	India
2021	<b>AIR 2581(0.1 Percentile)</b> , JEE Mains Exam 2021	India
2021	<b>AIR 1100</b> , KVPY 2021- Government of India Exam	India
2021	<b>96.2%</b> , CBSE Senior Secondary Board Exams (12th Standard)	India
2019	<b>98%</b> , CBSE Secondary Board Exams (10th Standard)	India

## Extracurricular Activity

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### Data Science Group IITR

CORE MEMBER

India

Apr. 2022 - Present

- Work on various core Data Science concepts, and spreading awareness about emerging areas like AI Security.
- Trying to reduce friction for students entering the ML community

### Physics and Astronomy Group IITR

CORE MEMBER

India

March. 2023 - Present

- Study and spread awareness about Astronomy and Physics.
- Trying to help people learn about telescopes and instruments along with ML and Data processing of Space images

## Relevant Coursework

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### Undergraduate

ML, CV, NLP AND AI SECURITY

Remote

Jan. 2022 - PRESENT

- MAN001: Basic Mathematics and Liner Algebra
- EEN 103 C++ Programming Course
- CS 229: Stanford ML course
- EECS: Deep Learning for Computer Vision- Michigan University
- CS 224n: Natural Language Processing with Deep Learning

## Skills

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<b>Programming</b>	Python, C++, JS ,Bash, Matlab, LaTeX
<b>Frameworks</b>	PyTorch, Numpy, Scipy, Sklearn, TensorFlow, JaX, Transformers
<b>Utilities</b>	Git, Docker, Conda, Github Actions, Linux, OSX
<b>Back-end</b>	Flask, Django
<b>Front-end</b>	HTML5, CSS
<b>Languages</b>	English, Hindi