



Gaurav Krishan Gupta
Computer Science & Engineering
Indian Institute of Technology Bombay

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B.Tech.
Gender: Male
DOB: 15-09-2001

| Examination | University | Institute | Year | CPI / % |
|---------------|------------|--------------------------|------|---------|
| Graduation | IIT Bombay | IIT Bombay | 2023 | |
| Intermediate | CBSE | St Joseph Convent School | 2019 | 90.80% |
| Matriculation | CBSE | St Anselm Pink City | 2017 | 10 |

Pursuing **Honors** in Computer Science and Engineering

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 53** in **IIT JEE-Advanced** out of 225,000 candidates (2019)
- Secured **All India Rank 64** in **JEE-Main** out of 1.5 million candidates (2019)
- Awarded **AP** grade for outstanding Academic Performance in Calculus (2019-20)
- Ranked among National **Top 1%** in **NSEP** (National Standard Exam , **Physics**), **NSEC** (National Standard Exam, **Chemistry**) and **NSEA** (National Standard Exam, **Astronomy**) conducted by IAPT (2019)

OLYMPIADS AND SCHOLARSHIPS

- Amongst **top 8** in India invited to attend **IMOTC**, International Mathematics Olympiad Training Camp (2019)
- Secured a position among **top 54** students in INChO and invited to attend (**OCSC**) for **ICHO** (2019)
- Qualified for **INMO**, Indian National Mathematics Olympiad for two consecutive years (2018-2019)
- Amongst the **top 300** students in **INAO**, Indian National Astronomy Olympiad (2019)
- Awarded the prestigious **KVPY Fellowship** by DST, Govt. of India with **All India Rank 40** (2017-18)
- Awarded National Talent Search Examination Fellowship by NCERT, Govt. of India (2017-present)
- Secured **Rank 1** in finals of **NMTC** held by The Association of Mathematics Teachers of India (2019)
- Secured **International Rank 1** in International Olympiad of Maths(**IOM**) held by Silverzone (2019)
- Secured **International Rank 4** in Internatinal Maths Olympiad held by Science Olympiad Foundation (2019)
- Secured **National Rank 5** in National Science Olympiad(**NSO**) held by Science Olympiad Foundation (2019)

INTERNSHIPS AND KEY PROJECTS

BASF

June 2021 - Ongoing

Data Analysis Intern

- Working in **Microsoft Power BI** to create **dynamic dashboards** with interactive, user-friendly graphs.
- Developing a Name Harmonisation web application in **Streamlit** for data wrangling of excel files.
- Using python libraries like **openpyxl** and **pandas** for efficiently handling the task of **Data Wrangling**

Robust Video Denoising

Spring 2021

Guide: Prof. Ajit Rajwade | Course Project

IIT Bombay

- Implemented a patch-based video denoising algorithm capable of removing serious mixed noise without strong assumptions on the statistical properties of noise in contrast to many other existing algorithms.
- Used **Adaptive mean filtering strategy** to significantly reduce the effect of impulsive noise.
- Grouped similar patches in spatial & temporal domain to make it a **low-rank matrix completion** problem.
- Fixed point iteration** was used to efficiently solve the resulting nuclear norm related minimization.
- Validated the robustness of this algorithm by removing heavy **Gaussian** noise mixed with **poisson** and **impulsive** noise and achieving nearly 100% increase in Peak signal-to-noise ratio (**PSNR**) value

Notify Me

Autumn 2020

Guide: Prof. Amitabha Sanyal | Course Project

IIT Bombay

- Built a **Notification System** to bridge the communication gap between professors and students
- Developed an admin side dashboard using **Angular and Django Framework** to create groups of students and TA's, control the broadcasting of notifications, categorization of the notifications by priorities & visibility of acknowledgements
- Developed an **Flutter** app for students to receive priority based notifications, view registered courses and deadlines
- Secured both the apps with a robust **login system** which had reset password functionality using OTP over email