

Darshit Trevadia

3rd Year Undergraduate
Department of Materials Science and Engineering

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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2019 - Present	B.Tech	Indian Institute of Technology, Kanpur	8.32/10
2019	HSC(XII)	PACE Jr. Science College, Mumbai	91.85%
2017	SSC(X)	St. Joseph's High School, Mumbai	92.30%

Scholastic Achievements

- Secured **All India Rank 5188** in **JEE Advanced 2019** among 230,000 eligible candidates (2019)
- Secured **All India 99.2 Percentile** in **JEE Mains 2019** among 11,57,125 candidates (2019)
- Stood **second** in the **National Standard Examination in Physics** organised by the **IAPT** (2019)
- Secured **Second Prize** at the **37th Anniversary Celebrations** organised by **The Nehru Planetarium** (2014)
- Awarded **Silver Medal** for the **Dr. Homi Bhabha Bal Vaidnyanik Jr.** competition at **state level** (2013)

Projects & Internship

- Nebulaa Innovations** — *Computer Vision Intern* (May '21 - Present)
 - Worked on MATT, Nebulaa's AI powered system to provide quality results of grains using Computer Vision
 - Trained YOLACT network on Nebulaa's custom dataset of various grains to yield 93% accuracy
- Machine Learning and Data Analysis for peak fitting and intelligent prediction** *Research Project — Mentor: Prof. Shikhar Jha* (Sept '20- June '21)
 - Analysed **X-Ray diffraction** plots & deployed **Machine Learning techniques** for peak fitting processes
 - Used **Computer Vision techniques** to determine line edges in plots and extract features from the masks
 - Used python libraries like **lmfit** with built-in peak fitting functions to fit the plot and extract features
 - Efficiently managed & sanitized raw-data received from **synchrotrons** speeding up peak fitting process
- Audio Event Detection**  (Sept - Dec '20)
Machine Learning Course Project — Mentor: Prof. Vipul Arora
 - Task 1: Classification** of various audio clips into **10 regular day events** like **barking, drilling, etc.**
 - Task 2: Identification** of a **string of such events** occurring in order using Convolutional Neural Networks
 - Using CNNs achieved training & testing accuracy of **96.2%, 93.0%** for Task1 & **93.0%, 85.0%** for Task2

Skills

- Programming Languages:** C/C++, , \LaTeX , MATLAB, Python Bash
- Software and Libraries:** Keras, PyTorch, NumPy, pandas, lmfit

Positions of Responsibility

- Student Guide, Counselling Service Team** (2020-21)
 - Guided and mentored **6 freshmen** students in acclimatizing to the Environment of the Institute.
 - Helped them with their academics by arranging meetings with their mentors and still maintain a good rapport with them.
 - Coordinated with the Counselling Service and helped in the organisation of **Orientation Programme 2020**.
- Secretary, Career Development Wing, Academics and Career Council** (2020-2021)
 - Conducted series of Interviews, Group Discussions, aptitude tests aiding Junior Year students in their recruitment process
 - Compiled a **Career Handbook** with resources and information on various recruiting companies.

Relevant Courses

Data Structure and Algorithms Fundamentals of Computing Introduction to Electronics Probability and Statistics Real Analysis	Machine Learning for Signal Processing Linear algebra and Differential Equations Partial Differential Equations Quantum Physics Machine Learning, Stanford
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Extra-Curricular Activities

- Certified Dramatist by the **Trinity Guildhall, London** with Distinction.
- Represented school in **State level Tennis Championship**