



Aryan Manna
Chemical Engineering
Indian Institute of Technology Bombay

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B.Tech.
Gender: Male
DOB: 15/07/2004

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2026	

Pursuing a **minor** in **Centre for Machine Intelligence and Data Science** in IIT Bombay

ACHIEVEMENTS

- Achieved **Rank 1295** and **fellowship** in stream SX in Kishore Vaigyanik Protsahan Yojana examination [2022]
- Secured **International Rank 34** and **99.91 percentile** in the SOF National Science Olympiad (NSO) [2018]
- Secured **International Rank 42** in Science Olympiad Foundation International English Olympiad (IEO) [2017]
- Secured **Zonal Rank 6** in SOF NSO in Delhi Zone and awarded the **Certificate of Zonal Excellence** [2017]

KEY PROJECTS

Engineering a Fluidised Bed Catalyst Regenerator | Guide: Prof. Sanjay Mahajani [May '24-present]

- Conducted **thorough research** and **meticulous analysis** to identify and compile **pertinent literature** needed
- Formulated multiple **systems of equations** to find various entities regarding **fluidisation and regeneration**
- Operated **MATLAB, Python, Fusion 360 and Desmos** for the various computational aspects of the project

Smart Home Plant Care System | ENT606-Developing a Proof of Concept-Basic [Nov 2023]

- Conceptualised a startup** to address neglected potted plants with a cheap motorised drip irrigation system
- Conducted market and competitive analysis, positioning the final product at **only 60% of competitors' costs**
- Procured **cheap yet reliable** equipment, **balancing affordability and functionality** of prototype effectively
- Part of a **team of four** planning, executing, and prototyping the system, exploring further commercialization

Modelling defence mechanism of Bombardier Beetle | Prof. S Das | Chemical Reaction Engineering [April '24]

- Thoroughly **studied the provided literature** about the chemical defence mechanism of the bombardier beetle
- Used **Python** and its inbuilt libraries (for eg. odeint) to solve the **equations** made and obtain the relevant data
- Operated **MS Excel** to work on the overall data gathered from equations so as to generate associated graphs
- Conducted an analysis to conclude an Explosive Secretory Discharge (ESD) to take time around **0.1 seconds**

TECHNICAL SKILLS

C++(on Windows, Linus, Cygwin), HTML, CSS, Microsoft Office, Autodesk Fusion 360, LaserCAD, Python, SQL

POSITION OF RESPONSIBILITY

Administrations Head | National Cadet Corps, IIT Bombay [July '24-present]

- Leading a **3-tier** council of **30+ members** for the seamless execution of **over 30 events** throughout the year
- Working in a team of **six**, leading **280 cadets** for smooth and safe functioning of the organisation as a whole
- Monitoring an annual budget worth **INR 1.2 million** allocated to NCC IITB, ensuring proper utilization of funds

Adventure Secretary | National Cadet Corps, IIT Bombay [July '23-July '24]

- Accountable for the conduction of sports and adventure-related activities for **over 200 first-year cadets**
- Organised an institute trip to Harishchandragad, successfully coordinating activities for **over 100 tourists**
- Responsible for the smooth conduction of **over 30 events** spread across 2 semesters various genres
- Part of a select group of **twenty one-member** Council managing the **overall functioning** of NCC, IIT Bombay

Cadet Under Officer | 2 Maharashtra Engineers Regiment [Aug '24-present]

- Awarded the rank of **Cadet Under Officer** for appreciable dedication and devotion for the Organisation's benefit
- A channel for effective communication amongst the **Officers of the Indian Army** and **Institute Functionaries**
- Developed **OLQs** (Officer Like Qualities) like decisiveness, discipline and punctuality in cadets of **3 batches**

EXTRA-CURRICULAR

- One of the **8 elite cadets** to perform Guard of Honour (special salute with rifles) on Independence Day [Aug '23]
- Undergone **military training** in the Combined Annual Training Camp and Council Training Camp [June-July '23]
- Participated voluntarily in **lake cleaning** and **river cleaning** done under the Puneet Sagar Abhiyan [Apr-Sep '23]
- Participated in Environment Day **tree plantation** by NCC, IIT Bombay and planted **twenty saplings** [June '24]
- Volunteered for donating blood** (B positive) at a blood donation drive conducted by NCC, IIT Bombay [Nov '23]
- Silver medallist** in Laughter Riots 3.0 conducted by Comedy Cons, the comedy club of IIT Bombay [Feb '23]
- Achieved **2nd place** in Lok Rang inter-school competition, DPS, RK Puram, representing DPS, Rohini [Dec '16]