



Yash Malde
Mechanical Engineering
Indian Institute of Technology Bombay

210100173
B.Tech.
Gender: Male
DOB: 30/09/2003

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2025	
Intermediate	GHSEB	Shree Satya Sai Vidyalaya, Jamnagar	2021	96.00%
Matriculation	GSEB	Shree Satya Sai Vidyalaya, Jamnagar	2019	94.17%

SCHOLASTIC ACHIEVEMENTS

- Ranked **9th** in the Department out of **190+** students | Achieved SPI of **9.78/10** in 4th semester ('23)
- Conferred with **AP** grade in Strength of Materials (ME202) course, awarded to **3 out of 222** students ('23)
- Secured All India Rank **668** in JEE Advanced out of **0.14M+** students (among **top 0.5%**) ('21)
- Achieved All India Rank **806** in JEE Main out of **1M+** candidates (among **top 0.1%**) ('21)
- Scored **99.88 percentile** among 0.11 million+ students in Gujarat Common Entrance Test (GUJCET) ('21)
- Attained **7th International rank** in SOF's IMO, earning a medal, certificate, and **INR 5,000** reward ('20)
- Achieved **1st** school rank in SOF's IMO for 3 consecutive years, earning **Gold medal** and Certificate ('13-'15)

KEY PROJECTS

Light Detection and Ranging Sensor (LiDAR) | Course Project (Jan'23-Apr'23)
Instructor: Prof. Sridhar Balasubramanian, Department of Mechanical Engineering

- Built **laser device** to measure object distance by analyzing return time of laser light, achieving **94%** accuracy
- Utilized an array of essential components including the **VL53L0X** time of flight sensor, **NEMA 17** stepper motor, A4988 motor driver, slip ring, Arduino nano, boost converter to accomplish the desired outcome
- Designed** the circuit layout and gained hands-on experience in soldering the components on a perfboard
- Achieved **2D shape determination** and plotting by measuring distances of an unknown-shaped box's walls

Compression Test on different length to diameter (L/D) ratio specimen | Course Project (Jan'23-Apr'23)
Instructor: Prof. Krishna Jonnalagadda, Department of Mechanical Engineering

- Performed uniaxial compression test on **20+ aluminum specimens** with varying L/D ratio from 1 to 6
- Examined various **deformations** such as **buckling**, shearing, barreling, uniform compression, double barreling
- Studied the **surface friction effects** with grease application, enhancing understanding of material behavior
- Analyzed and plotted **stress-strain** curves for different specimens, demonstrating valuable insights into the **variations of yield strength** in relation to different length to diameter (L/D) ratios of specimen

WiFi Controlled Bot | XLR8 (Aug'22)
Electronics and Robotics Club, Institute Technical Council, IIT Bombay

- Designed** and **constructed** a bot equipped with an ESP32, a buck converter, 4 DC motors, and various electrical components, operating flawlessly under a **WiFi-controlled** module programmed in Arduino IDE
- Optimized the electrical circuit and chose mechanical components to ensure **speed** and **dimensional** efficiency
- Skillfully maneuvered the bot through a demanding track with obstacles like ramps, marbles, rotating disc
- Worked in a team of 4 members and placed **3rd** out of **145 teams**, with a total of **500+ students**

Fabricating Compressor | Course Project (Aug'22-Nov'22)
Instructor: Prof. Avishek Ranjan, Department of Mechanical Engineering

- Employed a **slider crank mechanism** to design a compressor using 12V battery, DC motor, syringe and valve
- Determined compressor **pressure** by adjusting submerged tube height, observing **bubble cessation** in water
- Calculated the **efficiency** of compressor by measuring output power of compressor and input power of battery

POSITIONS OF RESPONSIBILITY

Sports Secretary | Hostel 6, IIT Bombay

(Oct'22-Apr'23)

Part of 3-tier hostel council selected for upliftment of sporting culture, catering to **450+** students

- Managed **INR 0.17M+** hostel sports budget, requiring immense managerial acumen in resource allocation
- Administered and upgraded inventory for **15+ sports**, overseeing maintenance of gym and different courts
- Ideated and executed a series of **10** intra hostel sport events involving participation of **200+** students
- Orchestrated a **2 day** hostel festival, engaging **400+ students** in diverse range of activities and performances

Coordinator | Aavhan, IIT Bombay

(Mar'22-Mar'23)

Part of the organizing team of IIT Bombay's Sports Fest hosting **6000+** participants from **150+** colleges

- Executed a prestigious **2 day** open chess tournament, attracting a massive participation of **550+** players
- Secured **Grandmaster participation**, elevating the chess tournament's prestige and participant experience
- Demonstrated exceptional organizational and management abilities by efficiently overseeing a significant prize pool of **INR 0.22M**, ensuring equitable distribution and timely disbursement of prizes to deserving winners
- Conducted Aavhan Online Chess Tournament with **900+** participants and a total prize fund of **INR 0.135M**

Events Coordinator | Techfest, IIT Bombay

(Oct'22-Dec'22)

Asia's largest Science and Technology Festival | Events: **100+**

- Created and managed a database of **50+** points of contact of companies through social media channels
- Contacted **10+** companies across the globe for showcasing their innovation at **International Exhibitions**
- Used various social media to advertise and increase awareness about various events planned at Techfest

TECHNICAL SKILLS

Languages	Python, C++, \LaTeX , HTML
Softwares	MATLAB, AutoCAD, Abaqus, MAXIMA, Microsoft Office
Libraries	C++: simplecpp Python : NumPy, Pandas, Matplotlib, Seaborn

COURSES UNDERTAKEN

Mathematics	Calculus, Linear Algebra, Differential Equations, Numerical Analysis
Mechanical	Engineering Mechanics, Solid Mechanics, Thermodynamics, Fluid Mechanics, Structural Materials, Strength of Materials, Mechanical Measurements, Manufacturing Processes*, Heat Transfer*, Microprocessor and Automatic Controls*
Labs	Solid Mechanics , Manufacturing Practice, Fluid Mechanics, Engineering Graphics and Drawing, Manufacturing Processes*, Mechanical Measurements*
Science	Quantum Physics and Application, Basics of Electricity & Magnetism, Physical Chemistry, Organic and Inorganic Chemistry, Biology
Miscellaneous	Computer Programming and Utilization, Introduction to Electrical and Electronics Circuits, Economics

(*Courses to be completed by Nov'23)

EXTRACURRICULAR ACTIVITIES

Sports	<ul style="list-style-type: none">Won Bronze Medal in General Championship for Carrom among 80+ participants ('22)Successfully completed a year long Chess training under NSO, IIT Bombay ('22)Participated in Crossy General Championship and completed a 5km long marathon ('23)Stood 1st at zonal level and 2nd at district level in Khel Mahakunbh Chess Tournament ('18)
Arts	<ul style="list-style-type: none">Participated in painting competition during Navy Week celebrations at INS Valsura ('17)Stood 1st in Rakhi making and 2nd in Paper Bag making Competition at school event ('12)Secured an impressive 2nd place in an Inter-Community Rangoli making competition ('12)
Cultural	<ul style="list-style-type: none">Performed a group dance in the highly anticipated Annual Cultural Show at school ('15)Showcased remarkable talent at the school's Navratri Mahotsav, making a lasting impact ('09)