



Dhriti Tejas Maniar
Mechanical Engineering
Indian Institute of Technology Bombay

22B2176
B.Tech.
Gender: Female
DOB: 26/08/2004

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

Pursuing a **Minor** in the Computer Science and Engineering (CSE) Department, IIT Bombay

SCHOLASTIC ACHIEVEMENTS

- Ranked in the **top 0.15 percentile** and **1.42 percentile** in **JEE Mains** and **JEE Advanced** respectively ('22)
- Awarded the **INSPIRE scholarship** for being amongst the **top 1%** students of the HSC Class 12 Board Exams ('22)
- Ranked **1st** among **240+** students in school for achieving the highest marks in Class 10 ICSE Board Exams ('20)

PROFESSIONAL EXPERIENCE

Industrial Research Intern | Industrial Research and Consultancy Centre, IIT Bombay (May'24 - Jul'24)

The nodal unit responsible for facilitating and disseminating R&D activities of IIT Bombay to external agencies

- Crafted content for a brochure detailing the working of **30+** patented technologies by IITB for **information dissemination**
- Benchmarked innovations against existing works, **highlighting unique methodologies** and **improved efficiencies**
- Assisted in developing a **hosted website** through extensive research on diverse industrial and societal applications

Content Designer | Eduisfun Technologies Pvt. Ltd. (Jul'22 - Aug'22)

Emerging EdTech firm offering adaptive E-learning software solutions to K-12 students and rural schools

- Received a **Letter Of Recommendation** from the Eduisfun Team for formulating animations of **10+** PCM topics
- Collaborated with a team of **20+ IITians** and professional animators to launch **StepApp**, an E-learning platform
- Responsible for **design thinking** and enriching the content of STEPapp via targeted animations and concise explanations

TECHNICAL PROJECTS

Effects of Interest Hikes on various Asset Classes (Jun'24 - Present)

FinSearch | Finance Club, IIT Bombay

- Analyzed the impact of interest rate hikes on **stock, bond, and derivative markets**, collaborating in a **team of 4**
- Analyzed **RBI's past 12 years'** interest rate hikes and their macroeconomic effects on **economic growth** and **inflation**
- Utilized various **financial models** like the **Vasicek model** and prepared a report summarizing findings and insights

Physics Informed Neural Networks on Navier Stokes equation (Jan'24 - Apr'24)

Course Project | Guide: Prof. Shyamprasad Karagadde

- Used **Tensorflow** to design a PINN to predict the **PDE** equation parameters for an incompressible viscous fluid flow
- Iterated through combinations of epochs and activation functions to achieve a velocity error of **1% over 1000 epochs**
- Minimised the loss value using **gradient tape**, **Xavier initialisation** and **Adam's optimiser** over 8 hidden layers

Mathematical Modeling and Simulation of Solid Biological Tumors (Dec'23 - May'24)

In-semester Undergraduate Research Project | Guide: Prof. Dnyanesh Pawaskar

- Developed a method to find **necrotic core** radial distance, matching that of mathematical models by **98% accuracy**
- Used **FEA (Ansys structural and thermal)** to examine the stress and concentration gradients within a solid tumor
- Reviewed **10+** research papers analysing the impact of **mechanical stress & nutrient concentration** on tumor growth

POSITIONS OF RESPONSIBILITY

Seasons of Code Mentor | Web and Coding Club, IIT Bombay (Jun'24 - Present)

- Designed an **8-week long summer course** on Machine Learning which included 2 mini-projects and a final project
- Supervised 8 students in the application of **C-GAN** and **U-Net** on **pix2pix** data to convert satellite images to maps

Department Academic Mentor | Department of Mechanical Engineering, IIT Bombay (May'24 - Present)

- Selected as a part of a 43 member team through rigorous interviews and peer reviews out of 150+ applicants
- Mentoring **6** sophomore students by providing guidance across their academic, personal, and extra-curricular pursuits.

Institute Events Convenor | Institute Sports Council, IIT Bombay (May'23 - Mar'24)

- Inter-IIT Coordinator:** Ensuring the smooth flow of **12 sports** and the hospitality of **3000+ athletes** from **23 IITs**
- Successfully executed the **Institute Table Tennis Open**, overseeing the participation of **370+ players**

Teaching Assistant | Department of Computer Science and Engineering, IIT Bombay (Jan'24 - May'24)

- Oversaw **10+** laboratory sessions of and evaluated exams for **500+** students in CS101 (**C/C++ Programming**)
- Chosen by the Professor to co-host and design questions for an end of semester revision lecture for **300+** students

EXTRACURRICULAR ACTIVITIES

- Selected as a freshman to be part of the 3 member **Table-Tennis Team** to compete in the **Inter IIT Sports Meet**
- Winner** of the Girls Rink **Football** Event in the **15+ Inter-College Sports Event** known as Skream
- Trained in **Karate** for **5+** years achieving a blue belt, attended a 7-day intensive camp and mentored **20+** novices
- Selected from 180+ students for the **Model Indian Parliamentary Session**, representing a constituency in Gujarat