



Ajinkya Vinod Bobde
Mechanical Engineering
Indian Institute of Technology Bombay

200040014
B.Tech.
Gender: Male
DOB: 21/11/2002

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2024	
Intermediate	MAHARASHTRA	SHRI. DAWALE JR COLLEGE	2020	92.62%
Matriculation	CBSE	SCHOOL OF SCHOLARS AKOLA	2018	96.20%

Pursuing a Minor in Artificial Intelligence and Data Science in C-MInDS

Scholastic Achievements

- Awarded **change of branch** to Mechanical Engineering among 1200+ students [2021]
- Achieved a total of **99.79 Percentile** in **JEE Main** out of 0.86 million candidates [2020]
- Recipient of the Kishore Vaigyanik Protsahan Yojana (**KVPY**) Fellowship [2019]
- Secured state rank **6** in **MTSE**(MAHARASHTRA TALENT SEARCH EXAM) [2017]
- Qualified for the second stage of **National Talent Search Examination (NTSE)** [2018]
- Ranked National Top **1 percent** in **NSEA**(National Standard Examination in Astronomy) [2019]

Key Projects

Emojify | Face Detection and Emoji Maker

[Jan'22 - May'22]

Course Project | Guide: Prof Biplab Banerjee

- Designed a **CNN**(convolution neural network) to recognize facial emotions using deep learning.
- Used **OpenCV** to detect the bounding boxes of face in the webcam and predict the emotions.
- Explored and used **Keras, Tensorflow, h5py, dlib** libraries for training and prediction in the model.

Algorithmic Trading

[May'22 - July'22]

Self Project

- Studied **candlestick** chart patterns, different trading styles such as **intraday** and **swing** trading.
- Used technical indicators like **moving average, bollinger bands and relative strength index**.
- Implemented and backtested various strategies such as trend following and mean reversion on top 10 companies by market-cap in **Python** using the **Backtrader** library.

Analysis and Prediction of Premier League Matches

[Sept'22 - Nov'22]

Course Project | Guide: Prof M Hanawal, A Sethi, S Sarawagi

- Automated data cleaning of web-scraped data present in HTML format using **BeautifulSoup**.
- Analyzed team qualities and displayed key match insights using **SeaBorn and Matplotlib**.
- Predicted match outcomes using **Random Forest, Naive Bayes and Neural Networks**.

Summer of Science | Data Structures and Algorithms

(May'21 - July'21)

Maths and Physics Club, IIT Bombay

- Made a File Zipper Using **Huffman Coding Algorithm** for compressing and decompressing files.
- Created a Map navigator based on **Dijkstra Algorithm** finding the shortest path between nodes.
- Learned working of **React** which uses **BFS** and **DFS** and compares virtual and real **DOM**.

Position Of Responsibility

Junior Design Engineer | IITB Racing

[Jan'22 - Jun'22]

A 3-tier cross functional team comprising of 90+ students who design and fabricate an electric race car, which competes in the Formula Student competition at Silverstone Circuit ,UK.

- Manufactured wings and sidepods of **E12** racing car using **Balsa** and **Carbon fibre**.
- Optimized aerodynamic components using Computational Fluid Dynamics simulation in **Simscale**.
- Assembled the aerodynamic components to represent in **FSUK** and **Formula Bharat**.

Teaching Assistant | Department of Physics, IIT Bombay

[April'22 - July'21]

- Tutored a batch of **40+** freshmen for the course of **Basics of Electricity and Magnetism**
- Assisted students by solving doubts in tutorials; evaluating quizzes worth **90%** of the course grade.

Interview Coordinator | Institute Placement Team

[Nov'21 - Dec'22]

- Ensured smooth conduction and execution of tests and interviews of firms for **500+** students
- Acted as a point of contact for students and several firms collaborating the recruitment process

Mentor | Summer of Science, IIT Bombay

[May'22 - July'22]

- Mentored students for the topic of Gravitational Wave Astronomy in Summer Of Science

Technical Skills

Languages	C, C++, Python,HTML,CSS, \LaTeX
Softwares	Solidworks, Autocad, Simscale, Git, Excel, Octave, ANSYS, Matlab
Frameworks	Pytorch, Scikit-Learn, Pandas, Numpy,Keras,Tensorflow, OpenCv

Key Courses Undertaken

Data Science	Programming for data science,Introduction to machine learning
Maths	Linear Algebra, Calculus, Numerical Analysis, Differential Equation
Physics	Quantum Mechanics, Introduction to Electricity and Magnetism
Mechanical	Solid Mechanics, Fluid Mechanics, Heat Transfer, Thermodynamics

Extracurricular Activities

- Volunteered one year of social service under the **Oli Quizzes**, NSS, IIT Bombay for **80+ hours**
- Served as **Marketing** Coordinator for **Mood Indigo** and **Media** Coordinator in **Techfest**
- Performed in **Open Mic** Conducted by **Symphony**, IITB (Music Club of IIT Bombay)
- Secured 1st place in district level **Squash** Tournament and selected for state level.
- Actively involved in **trekking** and climbed 14+ peaks including **Kalsubai(1646m)**.
- Participated in **Versova Beach Cleanup**, one of the Mumbai's most polluted beaches
- Bagged awarded **Silver medal** in the prestigious **Dr. Homi Bhabha Bal Vaidyanik Spardha**