Aditya Rajesh Agrawal   200100015

Mechanical Engineering   **B.Tech.**

Indian Institute of Technology Bombay   **Gender: Male**

          DOB: 4/6/2002

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2024	

SCHOLASTIC ACHIEVEMENTS

- Secured **99.4 percentile** in **JEE Advanced** Examination out of **0.15 million**+ aspirants   *('20)*
- Secured **99.91 percentile** in **JEE Mains** Examination out of **1.2 million**+ aspirants   *('20)*
- Received **AA grade** for good performance in **Solid Mechanics** Course and **Manufacturing lab**   *('21-'22)*

POSITIONS OF RESPONSIBILITY

Design Secretary | *MEA - Mechanical Engineering Association*   *(May '22- present)*
- Responsible for **designing creative graphics** for MEA social media handles to improve participation
- Coordinated with the chief editors and saw a **14%** follower increase on MEA Instagram handle in **2** months
- Assisting in conducting department initiatives & events like Mech- Monday, Mechanza, Weekly quizzes

Teaching Assistant   *(Mar '22- Jun '22)*

ME 119 (Engineering Graphics & Drawing) - Course compulsory for all the 1st year students
- Proctored **15**+ students during lab sessions and acted as a bridge to solve students' doubts and issues
- Implemented **AutoCAD** skills to deliver solutions to student lab problems catering to **160+** students

KEY PROJECTS

Stock Market Prediction Using Arima Model | *Seasons of Code | Web and Coding Club*   *(May '22- present)*

Collected data from Yahoo Finance to build a machine learning model that predicts the stock market prices
- Developed understanding of fundamentals of an **ARIMA model**, **Time Series Analysis**, and Data Cleaning
- Experimented with the order values and applied **Auto-Arima** to obtain best fit order for ARIMA model
- Implemented an **AD Fuller test** to check stationarity of data and removed it using **first-order differencing**
- Performed **Exploratory Data Analysis** using Numpy, Pandas, and Matplotlib to extract data insights

Computer Vision | *Maths and Physics Club*   *(May '22-present)*

Reading project as a part of the Summer of Science Programme
- Explored concepts like Linear Regression, Classification, SVM, Decision Tree, and Ensemble Learning
- Researched about **CNN algorithm** and its applications in image processing and classification domain

Bulldozer Price Prediction | *Self Project*   *(Jun '22-Jul '22)*

Built a machine learning model to predict the price for bulldozers based on Kaggle dataset with 18 million+ entries
- Converted categorical values into numerical values using Pandas categorical codes
- Implemented **RandomizedSearchCV** to find the best hyperparameters **for Random Forest Regressor** model
- Achieved an **R Squared score** of **90%** on validation data and **72%** on the final predicted values

Plastic Toy Manufacturing | *Course Project*   *(Apr '22-May '22)*

ME-206 Manufacturing Process 1| Prof. Rakesh G. Mote
- Worked in a team of 4 to develop an extensive research report on how Plastic toys are manufactured
- Explored various aspects of toy manufacturing such as design, material selection, processing, product inspection

Verification of Superposition and Reciprocal Theorem | *Course Project*   *(Mar '22 - Apr '22)*

M-218 Solid Mechanics Lab | Prof. Krishna N. Jonnalagadda
- Worked in a team of 4 and experimentally verified the Reciprocal and Superposition Theorem
- Understood and Used a **dial gauge** to read and measure deflections of beam due to corresponding load

EXTRACURRICULAR ACTIVITIES

- Acquired over **3.5 million** video views and **11000+** subscribers on my YouTube channel [name- Aditya Here]
- Honoured as the **best editor** for editing Hostel 9 music video in filmmaking GC organized by SilverScreen *('22)*
- Edited logo reveal video of the Annual Insync Dance Competition that got more than **22.4k** Instagram views
- Awarded as **Best Emerging Player** from **100+** participants in Amalner Premiere League - Cricket   *('22)*
- Awarded as **best trainee** among **40+** players at cricket camp organized by Jain Irrigation Systems, Jalgaon *('16)*