Sanskar Narlawar | **190020076**
Chemical Engineering | **B.Tech.**
Indian Institute of Technology Bombay | **Gender: Male**
DOB: 4/29/2002

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2023	

Pursuing **Minor** in the Department of **Physics**, IIT Bombay

Scholastic Achievements

- Rated as a **3-Star** programmer on CodeChef and completed a course on **DSA**
- Secured **99.93** percentile in JEE Main 2019 amongst 1.2 million candidates from all over the country
- Ranked amongst Top 1 percentile in JEE Advanced 2019 amongst 0.15 million candidates in India ('19)

Key Projects

Face Recognition System | Institute Technical Summer Project *(Apr'20-June'20)*

Institute Technical Council | IIT Bombay

- Constructed an **N - layered** neural networks model to analyze significance of **Fully Connected** layers
- Plied a portion of pre-trained **ImageNet** model by chopping few trained layers to obtain a feature vector
- Used euclidean distance criteria of **FaceNet** model to conclude whether the person is known or not
- Integrated **Face Detector** with face recognition system, which increased accuracy by **3 percentage**

Matrix and Primes Library | Summer of Codes *(May'21-July'21)*

Web and Coding Club | IIT Bombay

- Created a primes library, that supports primality test, primitive root functions and many other functions
- Written parameterized **unit tests** to test the primes library using the frame work of **Google tests**
- Studied about various advanced algorithms related to primality testing, matrix decomposition, matrix multiplication, factorization, **Fast Fourier Transform** and **Number Theoretic Transform**

Flight Status Prediction | Machine Learning *(Feb'21-Mar'21)*

Course Project | Guide: Prof. Biplab Banerjee, C-MInDS, IIT Bombay

- Performed **Exploratory Data Analysis (EDA)** to identify the key features about the processed data
- Implemented **one hot encoding** and then trained a logistic regression model to predict the flight status
- Interpreted the model, performed **variable selection** to **reduce size** and improve the accuracy of model

Optimizing Paper Cup | Heat Transfer *(Jan'21-Apr'21)*

Course Project | Guide: Prof. P.Sunthar, Chemical, IIT Bombay

- Assigned as **Solver** to come up with a unique solution to a pertient problem in **Heat Transfer**
- Modelled the heat flow in the cup as a **1-D model**, solved the equation to get an **analytical solution**
- Used matlab for **simulating** the model to visualize the **spatiotemporal** variation inside the tea cup

Number Theory And Cryptography | Self-Project *(Dec'20)*

- Studied many algorithms related to **Finding large primes** and **Discrete Logarithmic Problem**
- Analysed the applications of these problems by studying **RSA** and **Diffie-Hellman algorithms**

Technical Skills

- **Programming**: C++, Python, Numpy and Pandas || **Tools**: MATLAB, Excel Sheets and Anaconda

Position Of Responsibility

Events Coordinator | TechFest 2020-2021, IIT Bombay *(Aug'20-Dec'20)*

Asia's largest Technical Festival

- Assisting in the implementation of the HOPE, a social initiative by TechFest on **Mental Health**
- Overseeing **150+ workshops** to sensitize **5k+** college students in association with **10+ NGOs**
- Participated in the execution of WeCare, an initiative on **Animal Welfare** targeting **2k+ students**

Extra Curricular And Achievments

- Achieved **3rd place** in Dance Arcade and attended an introductory workshop on stand-up comedy
- Bagged **2nd place** in school **chess** tournament and **1st place** in intra hostel **poker** tournament
- Dedicated **80+ hours** to community under **Educational Outreach(EO)**, NSS, IIT Bombay