Polamreddy Mithun Balram		**180100081**
Mechanical Engineering		**UG Third Year (B.Tech.)**
Indian Institute of Technology Bombay		**Male**
Specialization: Mechanical Engineering		**DOB: 25/09/2000**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2021	9.25

Pursuing **Major** in Mechanical engineering and **Minor** in Computer Science and IEOR

SCHOLASTIC ACHIEVEMENTS

- Ranked **7th** in the Mechanical engineering Department among **140** students on the basis of CPI *(2020)*
- Secured **All India Rank 691** in **JEE Advanced** (IIT-JEE) among **230,000** candidates *(2018)*
- Awarded the prestigious **KVPY** scholarship securing **AIR 264** conferred by **IISC** among 0.15 million *(2017)*
- Stood **3rd** in **IIT Bombay Mathematics Olympiad** amongst 1500 candidates *(2016)*
- Secured **international rank 9** in the **National Science Olympiad** conducted by **SOF** *(2014)*

TECHNICAL PROJECTS

OSIC Pulmonary Fibrosis Progression— Kaggle Competition *(Ongoing)*
- Forecasted the lung full volume capacity(FVC) with error-bounds over a period of 3 years by implementing **ElasticNet regression** and **multiple quantile regression** over the time-series of FVC history
- Achieved a Laplacian loglikelihood of **-6.8351** and currently ranked **63rd** on the public leaderboard

Analysis of Warping of beam subjected to Torsion—Prof.Shyamprasad Karagadde *(Mar'20-July'20)*
- Implemented finite difference method to numerically obtain the **stress distribution** and **axial displacement** for beams of varied cross-sections under torsion and visualized them using **contour plots** resulting in improved understanding of regions of stress concentration aiding in **location-targeted failure prevention**
- Validated the results by optimization of potential energy and observed **3.8% relative error**

Multiclass Classification on CIFAR10 dataset in PyTorch—Self Project *(April'20)*
- Implemented **ResNet50** for classifying low-resolution 32*32 RGB images into **10 classes** and achieved **82.3%** accuracy,further fine-tuned the hyperparameters using Grid Search improving the accuracy by **0.7%**

INTERNSHIPS AND WORK-EXPERIENCE

Development of e-auction portal—Unimax World Pvt Ltd *(May'20-July'20)*
- Researched about the relevant features essential for the portal from the bank's and buyer's point of view and wireframed the website involving registration,property details,auction details page and the live-auction portal
- Part of a 3 member team that designed UI/UX and developed an interactive homepage and a prototype of the property and auction details page for the beta-launch of the website

Mahindra Rise Driverless car Challenge— Innovation Cell,IIT Bombay *(Sep'19-Jan'20)*
- Part of the Simultaneous Localization and Mapping subsystem of team **SeDriCa**,running cartographer in the system for generating,visualizing the map of the external surrounding in real-time

Data Science Internship—Sankhkyiki Robotics *(July '19)*
- Implemented **Logistic Regression** for classification of customers for loan approval after analysing the feature correlations,principle component transformations and confusion matrices for fine tuning the decision threshold

POSITIONS OF RESPONSIBILITY

Infrastructure Coordinator-Techfest,IIT Bombay *(April '19 - Jan '20)*
- Supervised building of the race track,driver's stand,podium and organised **International Full Throttle competition(RC Buggy Race)** in which over 40 buggies participated over a period of 3 days.
- Convinced hospitals,clinics for organising nation-wide camps to raise awareness about **Osteoporosis** by conducting **free health checkups** at temples,churches,malls and railway stations

RELEVANT COURSES

- **Statistics for Application** by **Phillipe Rigollet** offered by MITOCW -Audit course
- **Introduction to Stochastic modelling,Economics** and **Data Structures and Algorithms** at IITB
- **Natural Language Processing** and **Interactivity with JavaScript** offered by Coursera

EXTRACURRICULARS

- Secured **A Grade** in Intermediate Drawing Exam organised by the **Directorate of Art,Maharashtra***(2014)*
- Awarded **Black Belt** by the **Shotokan Karate Federation,India** after a rigorous 10-day exam *(2012)*
- Bagged **Bronze medal** in the **Skating District Sports Organization(DSO)** in Mumbai Region *(2010)*