



Aditya Saurabh
Mechanical Engineering
Indian Institute of Technology, Bombay
Specialization: Computer Integrated Manufacturing

160110078
Dual Degree (B.Tech. + M.Tech.)
Gender: Male
DOB: 06-09-1998

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

ACADEMIC ACHIEVEMENTS

- Obtained perfect **10.0** SPI in the **8th** semester | Awarded **Academic Excellence Award** in school for the year '09 & '12
- Secured **branch change** in freshmen year (top **10%**) | Awarded **AA** grade in **ML** (top **12%**) & Operation Analysis course

PROFESSIONAL EXPERIENCE

GE Aviation Analytics Intern [May'19-Jul'19]	Awarded Letter of Recommendation for exemplary work in data science & code optimization <ul style="list-style-type: none">Collaborated with 3 teams to file a disclosure in <i>health monitoring</i> of component in additive machineReduced 10% scrap by determining control limits for critical machine parameters via SPC analysisEnhanced run time & memory usage by 20X using regular expressions to parse unstructured dataImproved data visualization for users by adding real-time insights for various process parameters
Languify ML Team Leader [Apr'20-Jul'20]	<ul style="list-style-type: none">Led a team to develop a model on human pose detection (15 landmarks) using deep learning methodsAchieved state-of-the-art accuracy of 72% in detecting 7 emotions from facial expressions using CNNProduced realistic sequence of faces with expressions using 1 photo and audio clip as input via GANs
Usha Martin Business Intelligence [Dec'17-Jan'18]	<ul style="list-style-type: none">Pinpointed INR 0.8M/quarter reduction in inventory cost using efficient demand forecasting methodOrchestrated analysis of production process; interviewed 25+ operators & executives across 3 functionsBuilt consensus on the implementation of proposed plan among 10+ internal and external stakeholders

KEY PROJECTS

Generative CAD using ML [Jul'20-Present]	<i>Guide: Prof SS Pande, Dept of Mechanical Engineering, IIT Bombay</i> <i>Master's Dissertation</i> <ul style="list-style-type: none">Accelerated the process of topology optimization by proposing an auto-encoder CNN architectureVerified the above data-driven model by comparing the output to traditional methods like SIMP
Employee Attrition Predⁿ [Jan'20-Mar'20]	<i>Guide: Prof Amit Sethi, Dept of Electrical Engineering, IIT Bombay</i> <i>Course Project</i> <ul style="list-style-type: none">Mapped top 5 root causes affecting employees attrition using PC analysis and tree based classifiersAchieved 90% accuracy & F1 score of 0.82 using Random Forest Top 12% on Kaggle leadership
Topic Modelling [Nov'19-Dec'19]	<i>Guide: Prof Vinod Vydiswaran, Dept of Health Science, University of Michigan</i> <i>Self Project</i> <ul style="list-style-type: none">Categorized 0.1M NY Times articles into 10 broad labels and mapped them using LDA algorithmApplied tokenization, padding, lemmatization, vectorization for pre-processing of text data
Glider Competition [Sep'19-Nov'19]	<i>Guide: Prof RK Pant, Dept of Aerospace Engineering, IIT Bombay</i> <i>Course Project</i> <ul style="list-style-type: none">Fabricated 2 gliders from scratch, 1st (out of 12 teams) in range competition with glide ratio of 30:1Investigated the cause of crash of American Airline Flight 587 & presented it to an audience of 100+

LEADERSHIP ROLE

Overall Coordinator, National Service Scheme, IIT Bombay *Apr'19 - Mar'20*
Largest student-volunteer body serving 100k+ people | Led a 3-tier team of 400+ volunteers | Managed budget of INR 0.2M

Initiatives	<ul style="list-style-type: none">Chaired Open Learning Initiative, a YT channel with 0.12M subscribers (34% YoY ↑) & 10M viewsOrganized donation campaigns to collect 4.5 tonnes (66% YoY) of clothes, benefiting 2k familiesLaunched Instagram page (800+ followers), 1 WordPress blog (41k+ hits) and revamped website
Events	<ul style="list-style-type: none">Conceptualized 1st ever edition of 'FLARE', a socio-cultural competition, spanning over 25k schoolsImpacted 4.2k+ people by launching a blog series on mental health during Coronavirus outbreakIncubated sustainability cell at a regional college of strength 1k+ to build synergy between institutes
Outreach	<ul style="list-style-type: none">Collaborated with MHRD to host OLI on Diksha portal to foster e-learning of 10M+ studentsEnhanced the reach of initiatives by partnering with media houses like The Hindu and LokMat

TECHNICAL SKILLS & ACCOLADES

Mentoring	<ul style="list-style-type: none">Appointed as TA for a 4th year course; Delivering lab sessions and tutorials for a batch of 30+ '20Trained 50+ in Premiere Pro and Audacity by conducting 10+ basic and advanced workshops '17
Tools	<ul style="list-style-type: none">Programming : Python, C, C++, SQL, Matlab, L^AT_EX, CNC G-Codes, OctavePackages : tensorflow, keras, OpenCV, sklearn, pandas, numpy, plotly, matplotlib
Public Speaking	<ul style="list-style-type: none">Addressed crowd of 1200+ in freshmen orientation, to help choose preferences in NOCS course '19Represented IIT-B in Youth Speak Forum, in front of CEOs & foreign delegates to promote SDG '19
Certifications	<ul style="list-style-type: none">Deep Learning Specialization by Prof Andrew NG IBM Data Science Professional certification '20

Scholastic achievements and extracurricular activities are not verified by the Placement Cell