

# Laxman Desai Chemical Engineering Indian Institute of Technology Bombay

190020066 UG Second Year Male

DOB: 02/05/2001

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2021	8.51
Intermediate/+2	H.S.S (Goa Board)	Mushtifund Aryaan Higher Secondary School	2019	84.33
Matriculation	I.C.S.E	Sharada Mandir School	2017	91.60

#### Internships

#### Tech Leaders Summer Fellow

(Jun. 2020 - Aug. 2020)

 $Camp\ K12$ 

 $Mumbai,\ India$ 

- Taught coding in an intuitive manner to 100+ students aged 14-18 years using Python and JavaScript
- Spearheaded the redesign & diversification of the existing curriculum leading to 15% increase in revenue
- Covered curriculum spanning from basics such as Iterators to complex algorithms like Divide & Conquer
- Utilized AI Playground, Repl.it, Hatch XR, and MIT App Inventor

# PROJECTS

Smart Suitcase | Python, OpenCV, ROS, Gazebo, RViz, RQT

(Mar. 2020 - Jul. 2020)

Institute Technical Summer Project, IIT Bombay

Guide: Vishwajeet Bhagyawant

- Designed a suitcase that follows its owner there by eliminating the trouble of carrying it around
- Tested its functioning through virtual simulation by deploying it on a user controlled test target
- Implemented image processing through Python & OpenCV to scan the surroundings and lock down on the target through the HSV color range and used centroid tracking for mimicking the targets motion
- Accurately & efficiently simulated the bot and the control target using **Gazebo**, while using **ROS** to facilitate low-level device control and communication between various sub-processes

# Remote Controlled Airplane | IoT |

(Sep. 2019 - Oct. 2019)

Aeromodelling Club, IIT Bombay

- Designed fuselage, stabilizers and wings to reduce drag and enhance the performance
- Investigated design parameters for optimum performance and stability during flight

# Wireless Remote Controlled Car $\mid IoT$

(Aug. 2019 - Sep. 2019)

Electronics & Robotics Club, IIT Bombay

- Built a bot which decodes Bluetooth signals using an ATtiny IC to overcome an obstacle-filled course
- Installed **HC05** Bluetooth module to operate the bot remotely using an Android app
- ullet Implemented differential steering mechanism via L293D motor driver for reducing the turning radius

# ACHIEVEMENTS

• $4\star$ at CodeChef (relaxxpls) and $1048^{\rm th}$ amongst $9000+$ participants in Googe Kickstart	(Sept. 2020)
- Secured AIR $1448$ amongst $15lakh$ other candidates in JEE Advanced	(2019)
- Secured AIR $1063$ amongst $10lakh$ other candidates in AIIMS Entrance Test	(2019)
- Secured $99.6\%ile$ in JEE Mains and $98.7\%ile$ in NEET amongst $18lakh$ candidates	(2019)
$ullet$ Physics Topper and overall $2nd$ Ranker in GCET among $10,\!000$ other applicants	
- Scored $396/450$ in BITSAT placing in top $0.1\%ile$ of applicants	(2019)
• Goa State Talent Search Examination scholar for 2 consecutive years	(2018 - 2019)

## TECHNICAL SKILLS

Languages: C/C++, Python, Java, JavaScript, HTML/CSS, Bash, Matlab, R

 $\textbf{Tools:} \ \ \text{Git, PowerShell, Sublime Text, } \ \ \text{LaTeX}, \ \ \text{AutoCAD, SolidWorks, ROS, CMake, Adobe Creative Cloud}$ 

Libraries: STL, NumPy, OpenCV, TKinter

## Design Secretary

(Apr. 2020 - Ongoing)

Chemical Engineering Association (ChEA), IIT Bombay

Mumbai, India

- Part of a 9 member team, selected out of 50+ students on the basis of manifesto, assignment & interview
- Co-organised and coordinated 20+ departmental events, managing 1000+ unique students in total
- Crafted posters, curated content, designed new and innovative department hoodies leading to higher sales
- Utilised CorelDraw & Adobe Creative Cloud (Illustrator, Photoshop, Premiere Pro & After Effects)

## **Institute Cultural Mentor**

(Jun. 2020 - Ongoing)

StyleUp - The Fashion Club, Culturals, IIT Bombay

Mumbai, India

- Nominated (4 out of 100+) by Institute Fashion Nominee to promote fashion & other cultural activities
- Conceptualized and spearheaded Style Saturday, a monthly blog aimed at promoting style, grooming and personal well being a midst the COVID lock down resulting in  $\mathbf{2} \times$  monthly engagement
- Led the ideation & execution of various genre related events, targeting 300% increase in participation by introducing mixed themes, using innovative publicity, and introducing large scale never before seen online events such as Glamour Grande, an online fashion show

# Robowars Organizer

(Oct. 2019 - Jan. 2020)

Techfest, IIT Bombay

Mumbai, India

- Part of a team organising Asia's largest college technological festival, handling a total footfall of 1lakh+
- Led a group of 10+ organizers handling the sound system at India's largest robot combat competition

#### KEY COURSES

Computer Sci.: Cryptography & Network Security<sup>†</sup>, Introduction to Machine Learning<sup>†</sup>, Data Analysis<sup>†</sup>

DSA Specialization (UC San Diego, Coursera), Machine Learning<sup>†</sup> (CS50 Harvard, edX)

Data Structures & Algoritms (Summer Of Science '20) [†: To be completed by Apr '21]

Mathematics : Numerical Analysis, Linear Algebra, Differential Equations, Discrete Structures<sup>†</sup>

Chemical Eng.: Process Fluid Mechanics<sup>†</sup>, Heat Transfer<sup>†</sup>, Thermodynamics, Computational Methods

#### EXTRACURRICULARS

- Mentored 200+ UG & PG freshers and introduced them to various cultural activities (Sept. 2020)
- Successfully completed a Finance Bootcamp organised by Finance Club, IIT Bombay which (Apr. 2020) taught and tested the knowledge of Financial Statements, Capital Markets & Ratio Analysis
- Produced a song and released it on Spotify as a part of Institute Cultural Summer Project (Aug. 2020)
- Participated in StyleUp's Showstopper 2020 and performed to an audience of 1000+ (Jan. 2020)
- Professionally trained in table tennis through the National Sports Organization (NSO) (2019 2020)
- Directed, Edited and Starred in a **3<sup>rd</sup>** Prize winning comedy video "Area 51 Leaks", (Sep. 2019) made as an entry for the freshmen festival (Freshiezza)
- Played football (midfielder) for Sharada Mandir School team at state level (2015 2016)