



Ajinkya K || CH19B058

Indian Institute of Technology Madras

EDUCATION			
Program	Institution	%/CGPA	Year
B.Tech in Chemical Engineering	Indian Institute of Technology Madras	8.56	2023
XII (HSC)	Pace Junior Science College, Mumbai	73.7	2019
X (SSC)	Yashodham High School, Mumbai	93.4	2017
SCHOLASTIC ACHIEVEMENTS			
● Meritorious Performance in MTSE (Maharashtra Talent Search Examination) conducted at State Level .			2015
● Cleared Dr. Homi Bhabha Balvaidnyanik competition organized by Mumbai Science Teachers' Organization .			2015
WORK EXPERIENCE			
Research Internship, Prof. Abhijeet & Renganathan <i>Jun '21-Present</i>	<i>Non-CFD* simulation of natural convection based Autothermal Pyrolysis of Wood</i> <ul style="list-style-type: none">● Simulated flow of fluid governed by Pressure Variations using no-slip condition in a pipe● Examined Research Papers to visualize and apprehend the ins and outs of Oxidative Pyrolysis● Aimed at performing Non-CFD analysis of Velocity and Temperature Profiles in the chamber● Analyzing and Identifying suitable Mechanisms for Pyrolysis along with other Project Associates		
Mage <i>Feb '22-Apr '22</i>	<i>Worked on Software to provide automated backend Solutions</i> <ul style="list-style-type: none">● Created a templatized library of MongoDB GRPC service and MongoDB configuration generator● Created pipelines for building application code along with YAML file which validates the code● Reduced the struggle of writing code to create and manage backend service using a frontend		
PROJECTS & COMPETITIONS			
Indy Autonomous Challenge, 2020 & IGVC* 2020, Abhiyaan*	<i>Autonomous Vehicle Building Team, working on the Mechanical Chassis of Cart & Bolt</i> <ul style="list-style-type: none">● Enhanced the steering system by proposing the usage of Drive-by-Wire for steering of the cart● Represented IITM in IAC and contributed heavily towards the vehicle dynamics of INDY car● CAD modeled various steering systems & carried out stress analysis on the rack and pinion gear● Designing and Developing an autonomous bot aimed at representing India in IGVC '20 and '21		
Spam Classifier, NLP	<i>Spam or Ham classification of messages using nltk and Sklearn libraries.</i> <ul style="list-style-type: none">● Applied an SVM model using Sklearn to classify messages as Spam or Ham correctly● Integrated the use of nltk with Sklearn to extract an extensive sequence of words effectively● Achieved an accuracy of 98.35 % & an f1 score of 0.99 for ham and 0.93 for spam classification		
Face Recognition, OpenCV	<ul style="list-style-type: none">● Employed the usage of cv2 & face-recognition library to identify the person in the image quickly● Applied a Deep-Learning model using OpenCV to segment the face in an image with background		
COURSEWORK & SKILLS			
Mathematics	Probability, Statistics and Stochastic Process	Differential Equations	Linear Algebra
ML/DL	Mathematical Foundations of Data Science	Machine Learning -Andrew Ng	
Others	Design & Analysis of Algorithms	Principles of Economics	
Skills	Languages & Softwares: Python, C/C++, Matlab	Python Libraries: Numpy, Pandas, OpenCV, Sklearn	
POSITIONS OF RESPONSIBILITY			
Students' Head Finance Club <i>Jun '21-Present</i>	<ul style="list-style-type: none">● Influenced a team of 7 members to conduct Financial events benefiting 1.2k+ students● Conducted the First ever Finance Fest of IITM Octo-Bear-Bulletin successfully● Analyzed the working of initiatives and improved the same to deliver excellence● Spearheaded the initiatives for excellence and provided financial expertise to Managers		
EXTRA-CURRICULAR			
Martial Arts	<ul style="list-style-type: none">● Red-1 belt in Taekwondo; Won Gold Medals in Inter-School Sparring Competitions● Meritorious Performance in the competition conducted by District Sports Office		
Cultural	<ul style="list-style-type: none">● A Music Enthusiast and a Guitar Player for the past six years; Sangeet Subodh Certificate in Guitar		
Sports	<ul style="list-style-type: none">● Outstanding Performance in Swimming Competitions with a record of 26.8s in 50m● Ranked among the Best 5 in Table Tennis Competition conducted at School Level		
Social Initiatives	<ul style="list-style-type: none">● Mentored a board Aspirant to upgrade her Academic status from 2nd to 1st		
Volunteering	<ul style="list-style-type: none">● Volunteered for Publicity and Hospitality team in ChES* organized ChemPlus 2020● Ushered & Assisted participants for a smooth experience during the competition		

IGVC: Intelligent Ground Vehicle Competition;
ChES: Chemical Engineering Society;

IAC: Indy Autonomous Challenge

Abhiyaan: 2nd Best Student Autonomous Team in the World;
CFD: Computational Fluid Dynamics