

EDUCATION			
Program	Institution	CGPA/%	Year of Completion
Dual Degree in Biological Sciences	Indian Institute of Technology, Madras	7.94	2019-2024
XII (GSEB)	Best High School, Ahmedabad	80%	2019
X (GSEB)	Best High School, Ahmedabad	87.17%	2017
SCHOLASTIC ACHIEVEMENTS			
<ul style="list-style-type: none">Only student from 2019 batch to achieve Panasonic Scholarship ProgramGold Medal for Class Rank 1, cleared 1st Level and secured Int. Rank 3359 in 2nd Level of National Science Olympiad in Class XSecured International Rank 859 in International Science Olympiad in Class IX conducted by Science Olympiad Foundation (SOF)			
RELEVANT COURSES AND SKILL		*Completed Prof. Course, ** Coursera, ***NPTEL	
• Data Structures & Algorithms for Biology*	• Biostatistics*	• Fundamentals of Operation Research*	
• Statistics for Data Science with Python**	• Convolutional Neural Networks**	• Introduction to DL & NNs with Keras **	
Tools Used: Angular, TypeScript, HTML, CSS, Bootstrap , Node.js, APIs		Programming Languages: C, SQL, Python, React Native	
WORK EXPERIENCE			
ML Engineer Intern FN MathLogic Consulting Services Gurgaon May'23 – July '23	Developing a Conversational Question Answering System using Large Language Models (LLMs)		
	<ul style="list-style-type: none">Explored LLM memory retention via various model finetuning methods on ICICI Lombard Policy QnA dataImplemented Transfer Learning on Microsoft's DialoGPT model that retained chat memory for 4-5 conversationsNodejs based frontend interacted with user. Dialogflow was used to detect intentions from user messagesFastAPI based backend was used to call LLM model to generate answer and send them back to frontend		
	Document Parsing for Question Answering using LLMs with Langchain framework		
	<ul style="list-style-type: none">Transformed ICICI Lombard docs into chunks, each were converted to embedding using LLM/encoder-only modelUsed Langchain & utilized Flan-T5 model as LLM & embedding of HuggingFace platform led to 30% rouge score		
ML Intern Street Style Store May'22 – Aug'22	Conversation Classification for Enhancing User Experience		
	<ul style="list-style-type: none">Worked on Classification of conversation between user & agent regarding online order to improve user experienceUtilized N-grams stored as Bag of Words & compared Recall values for SVM model that gave 96.4% accuracy		
Data Science Intern Supratech Lab Gujarat Nov'21 – Dec'21	Machine Learning Modeling for Optimizing IVF process		
	<ul style="list-style-type: none">Identified crucial biomarker genes for IVF that enabled successful implantation, enhancing IVF treatmentsEmployed PCA & t-SNE for dimensionality reduction & conducted T-test calculating P valuesUsed Feature Importance of Random forest on data and trained XGBoost model that achieved 82% accuracy		
RESEARCH EXPERIENCE			
ML Research Intern IIT Varanasi Research Paper June'21 – July'21	Machine Learning for Milk Foam Analysis, Guide: Prof. Abhishek Dhoble		
	<ul style="list-style-type: none">Worked on Classification of Surfactants to study milk foam quality as demand for Cappuccino foams has increasedRandomforest achieved 0.955 roc-auc score & 88.1% test accuracy, also applied algorithms eg SVM, XGBoost etcExplored Casein reaction with surfactants, this study also got published as the research paper in Springer Nature		
DDP PROJECT IIT Madras July'23- Ongoing	Evaluating ML models for Chest X-ray of Diseases, Guide: Prof. Ganapathy Krishnamurthi		
	<ul style="list-style-type: none">Applied Transfer Learning on Ensemble of CNN models the chest x-ray images of Pneumonia and Normal personImplemented Image Data Generator for increasing training data to avoid overfitting & obtained 93.7% accuracy		
COURSEWORK			
Monte Carlo Simulation [BT 2042: Fundamentals of Biophysical Chemistry]			
<ul style="list-style-type: none">Observed polymer assemblies using Monte Carlo Metropolis criterion in matlab at different interaction energies between atomsWhen interaction energy is low the polymer formed aggregate. When only some atoms can interact then polymer had more energy			
PROJECTS			
To-Do List Web Application (Angular)		Jul'22-Aug'22	
<ul style="list-style-type: none">Developed dynamic & user-friendly To-Do List web application using Angular framework, allowing users to efficiently manage timeImplemented features to add, delete, & update tasks, along with the capability to create & manage multiple sub-todos within each task			
Bus Tracking Web Application		Jul'22- Aug'22	
<ul style="list-style-type: none">Developed real-time bus tracking web application for campus transport. Devised user interface & backend logic to display live bus locationUtilized GPS data from buses via APIs to provide accurate real-time coordinates. Implemented features for route visualization, bus arrival predictions, and user-friendly interface.			
Rent A Car Application using Angular			
<ul style="list-style-type: none">Built and maintained a dynamic Single-Page Application (SPA) using Angular, empowering efficient car rental managementImplemented admin functionalities for cars, brands, colors & services, empowering efficient data management.			
POSITION OF RESPONSIBILITY			
Computer Vision & Intelligence Club Project Member, Shaastra 2022		June'21 – April'22	
<ul style="list-style-type: none">Worked on YOLO v5 model for detecting circuit components and the mAP score of the model evaluated with 25 images is 92.7%Detected terminal points, nodes in circuit using BFS algorithm and generated netlist about connectivity of components with others			
Biogen Super Coordinator, Shaastra 2022		July'21 – Jan'22	
<ul style="list-style-type: none">Supervised all the coordinators in theme ideation & related events to be organized related to biotechnology under the Biogen TeamCollaborated with other teams of Shaastra which help organizing event and also assist them with the publicity of the event			
EXTRA-CURRICULAR ACTIVITIES			
Sports	Selected for NSO Fitness program and also participated in Samanvay Marathon 2019		