

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	
<ul style="list-style-type: none">Data Structures & Algorithms for Biology*Statistics for Data Science with Python**Introduction to Machine Learning***		<ul style="list-style-type: none">Biostatistics*Convolutional Neural Networks**	<ul style="list-style-type: none">Fundamentals of Operation Research*Introduction to DL & NNs with Keras **	
Programming Languages: C, basic SQL, Python, React, React Native Hackathons Univ.Ai				
WORK EXPERIENCE				
Data Science Intern at 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 and Langchain framework on ICICI Lombard Policy QnA dataImplemented Transfer Learning on Microsoft's DialoGPT model which was able to retain chat memory for 4-5 conversationsAchieved 60% ROUGE SCORE on DialoGPT also used Reinforcement Learning from Human Feedback method with GPT gave 25% rouge score				
Document Parsing for Question Answering using LLMs with Langchain framework				
<ul style="list-style-type: none">Transformed ICICI Lombard policy docs into chunks, each were converted to embedding from LLM or encoder-only model's embeddingUsed Langchain to retrieve top k similar document chunks to user's query. These are given with prompt to LLM for answer generationUtilized Flan-T5 model as LLM and embeddings from encoder-only model of HuggingFace platform led to 30% rouge score				
Machine Learning Intern at Street Style Store Company, Delhi			May'22 – Aug'22	
<ul style="list-style-type: none">Worked on Classification of the conversation between a user and agent about progress of online order to improve user experienceUtilized N-grams stored as Bag of Words & compared Recall values for SVM model that achieved a 96.4% accuracy on the test dataset				
Data Science Intern at Supratech Lab, Gujarat			Nov'21 – Dec'21	
<ul style="list-style-type: none">Identified crucial biomarker genes for IVF that enabled successful implantation, enhancing the effectiveness of IVF treatmentsEmployed PCA & t-SNE for dimensionality reduction & conducted T-test calculating P values that reduced 57k GeneIDs features to 6kUsed Feature Importance function of Random forest on data and trained XGBoost model that achieved 82% test 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				
EddyNet: For Pixel-Wise Classification of Oceanic Eddies, [OE5015: Machine Learning for Ocean Engineers]				
<ul style="list-style-type: none">Classified sea surface height maps using EddyNet, comprising convolutional encoder-decoder U-Net and a pixelwise classification layerFor multiclass classification used one-vs-all soft dice loss. Accuracy from Dice Loss is 89.08% and Categorical Cross Entropy gave 90.61				
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				
Stocks & Crypto Currencies Price Prediction Using LSTM				
<ul style="list-style-type: none">Developed Long Short-Term Memory (LSTM) models with Keras to predict Closing price values based on over a decade of trade dataWhile training, past 19 days values used as input to predict next day's value. Achieved mean squared error (MSE) of 0.465 on testdata				
Netflix Movies and TV Shows Recommendations				
<ul style="list-style-type: none">Developed Recommender System using Content based method for Netflix movies and TV shows recommendationsAlso provided recommendations for books using LightFM hybrid recommender which incorporates both item and user metadata				
Quora Question Pairs				
<ul style="list-style-type: none">Examined whether the questions in each pair are similar or not by calculating cosine similarity between the questionsUsed GloVe embeddings, tf-idf and doc2vec vectorizer that achieved maximum accuracy of 66% in latter two methods				
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				
Public Relations Volunteer, Shaastra 2020			Sept'19 – Feb'20	
<ul style="list-style-type: none">Reached out to various social media accounts as a part of PR activity for our social campaign named "BLINK ".Planned and executed "Walk in the Dark" and various activities for our stall at KV ground and spread campaign motto				
EXTRA-CURRICULAR ACTIVITIES				
Sports		<ul style="list-style-type: none">Selected for NSO Fitness program and also participated in Samanvay Marathon 2019		

