

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"><li>Only student from <b>2019 batch</b> to achieve <b>Panasonic Scholarship Program</b></li><li><b>Gold Medal</b> for Class Rank 1, cleared 1st Level and secured <b>Int. Rank 3359</b> in 2nd Level of National Science Olympiad in Class X</li><li>Secured International <b>Rank 859</b> in International Science Olympiad in <b>Class IX</b> conducted by <b>Science Olympiad Foundation (SOF)</b></li></ul>			
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**	
• Introduction to Machine Learning***	• Programming Languages: C, SQL, Python, React, React Native		• Hackathons   Univ.Ai
WORK EXPERIENCE			
Data Science 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"><li>Explored <b>LLM memory retention</b> via <b>finetuning methods LoRA &amp; QLoRA</b> on <b>ICICI Lombard Policy QnA data</b></li><li>Implemented <b>Transfer Learning</b> on Microsoft's <b>DialoGPT</b> model that retained chat memory for <b>4-5 conversations</b></li><li>Achieved <b>60% ROUGE SCORE</b> on DialoGPT also used <b>Reinforcement Learning</b> from <b>Human Feedback</b> method with <b>GPT</b> gave <b>25% rouge score</b></li></ul>		
	Document Parsing for Question Answering using LLMs with Langchain framework		
	<ul style="list-style-type: none"><li>Transformed <b>ICICI Lombard docs</b> into chunks, each were converted to embedding using <b>LLM/encoder-only</b> model</li><li>Used <b>Langchain</b> to retrieve <b>top</b> similar chunks to user's query which are given to LLM for answer generation</li><li>Utilized <b>Flan-T5 model</b> as LLM &amp; <b>embedding</b> of <b>HuggingFace</b> platform led to <b>30% rouge score</b> on test dataset</li></ul>		
ML Intern Street Style Store May'22 – Aug'22	Conversation Classification for Enhancing User Experience		
	<ul style="list-style-type: none"><li>Worked on <b>Classification</b> of conversation between user &amp; agent regarding online order to improve user experience</li><li>Utilized <b>N-grams</b> stored as <b>Bag of Words</b> &amp; compared <b>Recall values</b> for SVM model that gave <b>96.4%</b> accuracy</li></ul>		
Data Science Intern Supratech Lab Gujarat Nov'21 – Dec'21	Machine Learning Modeling for Optimizing IVF process		
	<ul style="list-style-type: none"><li>Identified crucial biomarker genes for IVF that enabled successful implantation, enhancing <b>IVF</b> treatments</li><li>Employed <b>PCA &amp; t-SNE</b> for dimensionality reduction &amp; conducted <b>T-test</b> calculating <b>P values</b> that reduced <b>57k</b> GenelDs features to <b>6k</b></li><li>Used <b>Feature Importance</b> of <b>Random forest</b> on data and trained <b>XGBoost</b> model that achieved <b>82% accuracy</b></li></ul>		
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"><li>Worked on Classification of <b>Surfactants</b> to study milk foam quality as demand for <b>Cappuccino foams</b> has increased</li><li><b>Randomforest</b> achieved <b>0.955 roc-auc score</b> &amp; <b>88.1% test accuracy</b>, also applied algorithms eg <b>SVM, XGBoost etc</b></li><li>Explored <b>Casein</b> reaction with <b>surfactants</b>, this study also got published as the <a href="#">research paper</a> in <b>Springer Nature</b></li></ul>		
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"><li>Applied <b>Transfer Learning</b> on <b>Ensemble</b> of <b>CNN</b> models the chest x-ray images of Pneumonia and Normal person</li><li>Implemented Image Data Generator for increasing training data to avoid <b>overfitting</b> &amp; obtained <b>93.7%</b> accuracy</li></ul>		
COURSEWORK			
EddyNet: For Pixel-Wise Classification of Oceanic Eddies, [OE5015: Machine Learning for Ocean Engineers]			
<ul style="list-style-type: none"><li>Classified sea surface height maps using EddyNet, comprising convolutional encoder-decoder <b>U-Net</b> and a <b>pixelwise classification layer</b></li><li>For multiclass classification used <b>one-vs-all soft dice loss</b>. Accuracy from <b>Dice Loss</b> is <b>89.08%</b> and <b>Categorical Cross Entropy</b> gave <b>90.61</b></li></ul>			
PROJECTS			
Stocks & Crypto Currencies Price Prediction Using LSTM			
<ul style="list-style-type: none"><li>Developed Long Short-Term Memory (<b>LSTM</b>) models with Keras to predict <b>Closing price</b> values based on over a decade of trade data</li><li>While training, past <b>19 days</b> values used as input to predict next day's value. Achieved mean squared error (<b>MSE</b>) of <b>0.465</b> on testdata</li></ul>			
Netflix Movies and TV Shows Recommendations			
<ul style="list-style-type: none"><li>Developed Recommender System using <b>Content based</b> method for Netflix movies and TV shows recommendations</li><li>Also provided recommendations for books using <b>LightFM</b> hybrid recommender which incorporates both item and user metadata</li></ul>			
Quora Question Pairs			
<ul style="list-style-type: none"><li>Examined whether the questions in each pair are similar or not by calculating <b>cosine similarity</b> between the questions</li><li>Used <b>GloVe embeddings, tf-idf and doc2vec vectorizer</b> that <b>achieved</b> maximum accuracy of <b>66%</b> in latter two methods</li></ul>			
POSITION OF RESPONSIBILITY			
Computer Vision & Intelligence Club Project Member, Shaastra 2022			June'21 – April'22
<ul style="list-style-type: none"><li>Worked on <b>YOLO v5 model</b> for detecting circuit components and the <b>mAP</b> score of the model evaluated with 25 images is <b>92.7%</b></li><li>Detected <b>terminal points, nodes</b> in circuit using <b>BFS algorithm</b> and generated netlist about connectivity of components with others</li></ul>			
Biogen Super Coordinator, Shaastra 2022			July'21 – Jan'22
<ul style="list-style-type: none"><li><b>Supervised</b> all the coordinators in <b>theme ideation</b> &amp; related events to be organized related to biotechnology under the Biogen Team</li><li><b>Collaborated</b> with other teams of Shaastra which help organizing event and also assist them with the <b>publicity</b> of the event</li></ul>			
Public Relations Volunteer, Shaastra 2020			Sept'19 – Feb'20
<ul style="list-style-type: none"><li>Reached out to various <b>social media</b> accounts as a part of PR activity for our social campaign named <b>"BLINK "</b>.</li><li>Planned and executed <b>"Walk in the Dark"</b> and various activities for our stall at KV ground and spread <b>campaign motto</b></li></ul>			
EXTRA-CURRICULAR ACTIVITIES			
Sports	<ul style="list-style-type: none"><li>Selected for NSO Fitness program and also participated in Samanvay Marathon 2019</li></ul>		