

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	
<ul style="list-style-type: none"><li>Data Structures &amp; Algorithms for Biology*</li><li>Statistics for Data Science with Python**</li></ul>	<ul style="list-style-type: none"><li>Biostatistics*</li><li>Convolutional Neural Networks**</li></ul>	<ul style="list-style-type: none"><li>Fundamentals of Operation Research*</li><li>Introduction to DL &amp; NNs with Keras **</li></ul>	
Tools Used: Angular, TypeScript, HTML, CSS, Bootstrap , Node.js, APIs		Programming Languages: C, SQL, Python, React Native	
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 various <b>model finetuning methods</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 <b>LLM &amp; 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></ul>		
	<ul style="list-style-type: none"><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 <a href="#">Research Paper</a> 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 &amp; 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 <b>research paper</b> in <b>Springer Nature</b></li></ul>		
	Evaluating ML models for Chest X-ray of Diseases, Guide: Prof. Ganapathy Krishnamurthi		
DDP PROJECT IIT Madras July'23- Ongoing	<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></ul>		
	<ul style="list-style-type: none"><li>Implemented Image Data Generator for increasing training data to avoid <b>overfitting</b> &amp; obtained <b>93.7%</b> accuracy</li></ul>		
COURSEWORK			
Monte Carlo Simulation [BT 2042: Fundamentals of Biophysical Chemistry]			
<ul style="list-style-type: none"><li>Observed polymer assemblies using <b>Monte Carlo Metropolis criterion</b> in <b>matlab</b> at different interaction energies between atoms</li><li>When interaction energy is <b>low</b> the polymer formed aggregate. When only some atoms can interact then polymer had more energy</li></ul>			
PROJECTS			
To-Do List Web Application (Angular)			Jul'22-Aug'22
<ul style="list-style-type: none"><li>Developed dynamic &amp; user-friendly To-Do List web application using Angular framework, allowing users to efficiently manage time</li><li>Implemented features to add, dele, &amp; update tasks, along with the capability to create &amp; manage multiple sub-todos within each task</li></ul>			
Bus Tracking Web Application			Jul'22- Aug'22
<ul style="list-style-type: none"><li>Developed real-time bus tracking web application for campus transport. Devised user interface &amp; backend logic to display live bus location</li><li>Utilized GPS data from buses via APIs to provide accurate real-time coordinates. Implemented features for route visualization, bus arrival predictions, and user-friendly interface.</li></ul>			
Rent A Car Application using Angular			
<ul style="list-style-type: none"><li>Built and maintained a dynamic Single-Page Application (<b>SPA</b>) using Angular, empowering efficient car rental management</li><li>Implemented admin functionalities for cars, brands, colors &amp; services, empowering efficient data management.</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>		

