

EDUCATION			
Degree	Institute / Board	CGPA / Percentage	Year
MTech (Industrial and Management Engineering)	IIT Kanpur	8.77/10 (Until Sem 2)	2020-22 (Expected)
BTech (Chemical Engineering)	IIT Guwahati	7.33/10	2016-20
Senior Secondary	CBSE (AISSCE)	87%	2015
Secondary	CBSE (AISSE)	9.4/10	2013
PROFESSIONAL EXPERIENCE			
Technocolabs Softwares Pvt. Ltd.		Machine Learning Engineer Intern	<i>June'21-July'21</i>
<i>Objective</i>	<ul style="list-style-type: none"> To build a real time stock price prediction system pipeline using news headlines and historical prices 		
<i>Approach</i>	<ul style="list-style-type: none"> Pulled data from real time stock price and stock news APIs Performed price data normalization, featurization (news: sentiment, subjectivity and price: technical indicators), news text n-gram, word count, news length analysis and stationarity, trend, seasonality analysis for price data Used pre-trained BERT (base-uncased) model on news text to get embeddings (768 dim) which are used as features to a final LSTM model (single-step forecast) trained based on 10 days history data of stock prices and news headlines 		
<i>Result</i>	<ul style="list-style-type: none"> Achieved train loss of 0.0017 and test loss of 0.0019; Deployed a ML pipeline to prototype an MVP scale web app 		
Harvesting India Pvt. Ltd.		Data Science Intern	<i>May'21-July'21</i>
<i>Objective</i>	<ul style="list-style-type: none"> To recommend crops to buyers based on their purchase history to increase sales 		
<i>Approach</i>	<ul style="list-style-type: none"> Performed EDA; Applied popularity and collaborative-filtering based models to user-item data 		
<i>Result</i>	<ul style="list-style-type: none"> Achieved 5-Fold RMSE of 1.39 with SVD model in collaborative filtering 		
InCampus Pvt. Ltd.		Business Development Manager Intern	<i>June'20-July'20</i>
<i>Objective</i>	<ul style="list-style-type: none"> To facilitate the market growth of the company in the education segment 		
<i>Approach</i>	<ul style="list-style-type: none"> Worked cross-functionally in developing effective business strategies and pipelines to leverage client base 		
<i>Result</i>	<ul style="list-style-type: none"> Achieved leads conversion rate of 10% from the company's B2B and B2C client base in just 2 months 		
PROJECTS			
AQI Analysis and Forecasting Self Project			<i>May'21-June'21</i>
<i>Objective</i>	<ul style="list-style-type: none"> To analyze the impact of COVID'19 in Air Quality Index of major cities in India and also forecast India's Avg AQI for 2021 		
<i>Approach</i>	<ul style="list-style-type: none"> Calculated correlation of pollutants with AQI, studied AQI trend during Covid-19 lockdown of major polluted cities Checked for stationarity, trend, seasonality of India's Avg. AQI using ADF-test with 95% confidence & Decompose Plot Used ACF, PACF plots to determine the parameters of final SARIMA (p=0, d=1, q=2) x (P=1, D=0, Q=1, s=12) model 		
<i>Result</i>	<ul style="list-style-type: none"> Achieved RMSE of 12.5 in the test data and forecasted AQI for the year 2021 		
New York Taxi Demand Prediction Applied Machine Learning			<i>Apr'21-May'21</i>
<i>Objective</i>	<ul style="list-style-type: none"> To predict number of pickups at a given location in a 10 mins interval 		
<i>Approach</i>	<ul style="list-style-type: none"> Removed outliers using univariate analysis; Divided NYC into regions with KMeans Clustering; Applied time binning with smoothing for each region Used simple/weighted/exponential-Moving Average as baselines; Performed featurization (lags, region, weighted average, Fourier transforms) and applied Linear, Random Forest and XGBoost Regressors as final models 		
<i>Result</i>	<ul style="list-style-type: none"> Reduced test MAPE to best at 11.57% with XGBoost Regressor 		
Optimal Portfolio Construction Financial Engineering			<i>Feb'21-May'21</i>
<i>Objective</i>	<ul style="list-style-type: none"> To determine overpriced & underpriced stocks in NSE top 100 companies and construct an optimal Markowitz portfolio 		
<i>Approach</i>	<ul style="list-style-type: none"> Analyzed time series characteristics of both stock price and its returns Plotted Security Market Line (SML) to classify stocks into underpriced & overpriced for all NSE 100 stocks with the help of β and $\alpha = 0.05$ (risk-free rate: 5%) to calculate the stock returns which are compared with actual stock returns Markowitz portfolios were built by taking the top 15 underpriced stocks & then 7000 simulations were performed to achieve a parabolic efficient frontier plot Final portfolio was selected with the maximum Sharpe Ratio using Capital Market Line (CML) & then invested in virtual stock trading platform Money Bhai 		
<i>Result</i>	<ul style="list-style-type: none"> With the final selected portfolio, a profit of 13.09 % was achieved over a period of only 4 months 		

Book Recommendation System Applied Machine Learning		Jan'21-Mar'21
Objective	<ul style="list-style-type: none"> To build a content-based book recommendation system of 20 Charles Darwin's Collections 	
Approach	<ul style="list-style-type: none"> Performed text normalization (stop words removal, tokenization, stemming), character counts analysis per book; Created dictionary corpus from all of the 20 raw textbook files of Charles Darwin's collection Applied bag-of-word, tf-idf models to vectorize our textbooks; Calculated cosine-similarity matrix from the pairwise distance of all textbooks; Plotted dendrogram to understand the similarities 	
Result	<ul style="list-style-type: none"> Recommended books by sorting similarity score value to a user's initial pick in the collection 	
Binary Classification of Occupancy of Room Self Project		Dec'20-Jan'21
Objective	<ul style="list-style-type: none"> To determine occupancy of room based on temperature, Humidity, Light, CO₂ content, Humidity Ratio 	
Approach	<ul style="list-style-type: none"> Applied Linear Probability model, Non-Linear Logit and Probit models to predict the Occupancy class Used VIF for multicollinearity check, Variable Significance Test with 95% confidence for feature selection Evaluated and compared all models on F1-Score, Accuracy and analyzed Pseudo R² for non-linear models 	
Result	<ul style="list-style-type: none"> Obtained best accuracy of 0.98, F1-Score of 0.97, Pseudo R² of 0.9034 with Logit model 	
Song Genres Classification Data Mining and Knowledge Discovery		Oct'20-Nov'20
Objective	<ul style="list-style-type: none"> To classify song genres as hip-hop or rock from audio tracks data 	
Approach	<ul style="list-style-type: none"> Performed data preprocessing, feature reduction (PCA with scree plots), class balancing with SMOTE Applied Decision Tree & Logistic Regression Classifiers and compared them based on accuracy and F1-score 	
Result	<ul style="list-style-type: none"> Achieved test (F1-score: 0.82, accuracy: 78 %) & 10-Fold CV accuracy: 86 % with Logistic Regression 	
Bike Sharing Demand Analysis Self Project		July'20-Aug'20
Objective	<ul style="list-style-type: none"> To understand the significant factors affecting the demand of shared bikes in the American market 	
Approach	<ul style="list-style-type: none"> Visualized distplots; checked multicollinearity with correlation & VIF, Selected features using RFE based on p values 	
Result	<ul style="list-style-type: none"> Achieved Adjusted R² of 0.791 with the final OLS model of only 6 input features with 95% confidence 	
SKILLS, COURSEWORK AND CERTIFICATIONS		
Technical Skills:	Python Data Structures & Algorithms (Basics) SQL (MySQL) ML Libraries: NumPy, Pandas, Matplotlib, Scikit-Learn, XG Boost, NLTK, gensim DL Libraries (Beginner): Keras, TensorFlow	
Non-Technical Skills:	Analytical Thinking Problem Solving Strategic Thinking Decision Making Adaptability Team Management Communication Skills Interpersonal Skills Leadership Team Work	
Academic Courses: <i>*In Audit</i>	Data Mining & Knowledge Discovery Applied Machine Learning Statistical Modelling for Business Analytics* Advanced Statistical Methods for Business Analytics Probability & Statistics Intro to Computing Financial Engineering Operations Research for Management Advanced Decision Models Software Project Management	
Online Certifications:	SQL Masterclass: SQL for Data Analytics (Udemy) Time Series Analysis and Forecasting using Python (Udemy) Python for DSA (Udemy) Power BI: Zero to Hero (Udemy) Excel: Beginner to Advanced (Udemy)	
POSITIONS OF RESPONSIBILITY		
<ul style="list-style-type: none"> Student's Senate Nominee to Senate Educational Policy Committee, IIT Kanpur Aug'21-Present <ul style="list-style-type: none"> Overseeing the academic policy matters of the institute in the interest of 6000+ student community Planning to propose: setting up of new interdisciplinary departments to leverage seminal research outputs PG Secretary, Academic Wing, Academics and Career Council, IIT Kanpur Aug'21-Present <ul style="list-style-type: none"> Conducting orientation, organizing workshops, addressing academic concerns and providing support to 1400+ new PG students Teaching Assistant, MBA 749A Social Media Analytics Course, IIT Kanpur Aug'21-Sept'21 <ul style="list-style-type: none"> Graded assignments, inspected class participations, assisted Instructor in course logistics to 30 enrolled students Department Internship Coordinator, IIT Kanpur Sept'20-July'21 <ul style="list-style-type: none"> Achieved 100% success rate in the Summer Internship Drive 2020-21 for all 21 students of MTech IME Y20 Batch Made awareness of various career paths; Initiated Industry collaborations for long term projects to augment student's learnings Promoted department as brand in LinkedIn; Conducted Alumni guest lectures on latest Industry practices to keep students abreast Event Executive, Reflux 6.0, Annual Chemical Engineering Symposium of IIT Guwahati Jan'18-Mar'18 <ul style="list-style-type: none"> Managed competitions, workshops, exhibitions and speaker sessions along with a team of 5 executives for a footfall of 1000+ 		
EXTRACURRICULARS AND ACHIEVEMENTS		
<ul style="list-style-type: none"> Secured 87.96 percentile among 3200+ participants in Amazon ML Challenge, 2021 conducted by Amazon India Secured first position in Yoga event among 100+ students at Intra-Batch Games and Sports Competition'17, IIT Guwahati Former Active Member of NSO Swimming and Yoga SA groups at IIT Guwahati Completed 3 years of Parichay Painting Course (Diploma) in 2009 at Seuj Shilpee & Jagreeti Chitra Mahavidhyalaya, Sivasagar 		