

DEWANGAN SMIT
OMPRAKASH

+91-8319072810 dewangans26@iitk.ac.in Smit Dewangan SMIT

EDUCATION				
Degree/Certificate		Institute	CPI/%	Year
M. Tech (Department of Management Sciences)		Indian Institute of Technology, Kanpur	-	2026-Present
B. Tech (Mechanical Engineering)		Bhilai Institute of Technology, Durg	81.27%	2016-20
Higher Secondary Education		Sri Chaitanya Vidya Niketan, Visakhapatnam	88.80 %	2016
Secondary Education		St.Mary English Medium School, Amalner	95.00%	2014
KEY PROJECTS				
FLIGHT TICKET PRICE PREDICTION <i>Regression</i> (Self Project)  GitHub				
Objective	To predict flight ticket prices for Indian airlines using machine learning algorithms.			
Approach	- The dataset comprises 10 independent features, and a dependent variable "Price" with 10,682 observations. Data Preprocessing: Conducted outlier treatment, feature engineering and handled missing values. Applied one-hot encoding and feature scaling. Models Used: Employed Random Forest Regressor. Hyperparameter Tuning: Used GridSearchCV to optimize model hyperparameters and enhance predictive performance. Tools & Libraries: Python, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn.			
Result	Achieved an adjusted R^2 score of 0.852 after Hyperparameter tuning as compared to R^2 score of 0.845 using Random Forest Regressor .			
CUSTOMER CHURN PREDICTION <i>Classification</i> (Self Project)  GitHub				
Objective	Developed a binary classification model to predict customer churn and enable proactive customer retention strategies.			
Approach	- Analyzed a dataset containing 7,043 customer records with 20 independent features. Data Preprocessing: Cleaned missing values, encoded categorical variables using One-Hot Encoding, and standardized numerical features through feature scaling. - Performed Exploratory Data Analysis (EDA) using Univariate and Bivariate Analysis to identify key churn patterns and feature relationships. - Built Decision Tree and Random Forest classifiers; addressed class imbalance using SMOTE and applied Principal Component Analysis (PCA) for dimensionality reduction. - Evaluated models using Precision, Recall, and F1-score. Tools & Libraries : Python, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn.			
Result	Random Forest with SMOTE achieved Precision = 0.94, Recall = 0.96, and F1-score = 0.95 .			
MALL CUSTOMERS CLUSTERING ANALYSIS <i>Clustering</i> <i>K-means</i> (Self Project)  GitHub				
Objective	The objective of this unsupervised learning project is to make clusters of customers of a mall with 5 attributes.			
Approach	- Examined the dataset for missing values and duplicate records. - Performed descriptive statistics, visualization using pairplot, data analysis. - Performed clustering analysis using K-means clustering, Seaborn, Matplotlib Elbow method used to find the optimum cluster number.			
Result	Identified four customer segments: Regular Customers, Priority Customers, Senior Citizens, and Young Customers.			
COURSEWORK AND SKILLS				*In Progress
Relevant Courses	Probability & Statistics* Operations Research for Management* Data Mining and Knowledge Discovery* Introduction to Computing*			
Skills	Python ML Libraries: NumPy, Pandas, Matplotlib, Scikit-learn Microsoft Excel SQL			
Soft Skills	Analytical Skills Critical Thinking Communication Skills Adaptability Teamwork			
ACHIEVEMENTS				
- Secured AIR 46 in GATE 2025 conducted by IIT Roorkee in ENGINEERING SCIENCES with a GATE SCORE of 771. - Recognized by the Maharashtra State Government with a Congratulatory Letter from the Minister for School Education for Academic Excellence in the 2014 SSC Examination. - Received interview calls from leading PSUs and Central Government Organizations including ONGC, IOCL, HPCL, SAIL, BEL, BEML, NLC, ISRO, BARC and NPCIL.				