

# UDAY KUMAR

M.Tech (Industrial & Management Engineering)

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ACADEMIC DETAILS			
YEAR	QUALIFICATION	EDUCATIONAL INSTITUTION	PERCENTAGE
2019-21	M.Tech (Industrial & Management Engineering)	Indian Institute Of Technology, Kanpur	6.85 (CPI)
2013-17	B.Tech (Mechanical Engineering)	KIIT University, Bhubaneswar	83.1%
2013	Class XII (ISCE)	AGCS, Kolkata	91.5 %
2011	Class X (ICSE)	AGCS, Kolkata	88.8 %
ACADEMIC PROJECTS			
Statistical Modelling for Business Analytics	<b>Medical Insurance Premium Prediction</b> – Predict the cost of medical insurance premium and study the factors affecting it <ul style="list-style-type: none"><li>Encoded the categorical data using <b>OneHotEncoder</b> and <b>LabelEncoder</b> and avoided <b>dummy variable trap</b></li><li>Applied <b>Simple</b> and <b>Multiple Linear Regression</b> technique</li><li>Incorporated an <b>interaction feature</b> BMI OF SMOKERS and significantly improved in the <b>Adjusted R- Square value</b> to <b>0.82</b></li></ul>		
	<b>Bank Marketing Campaign Analysis</b> – Extract information from existing marketing campaign dataset of a bank and find out customer segment who subscribed to term deposit for developing next marketing campaign <ul style="list-style-type: none"><li>Checked for <b>multi collinearity</b> of features using <b>VIF</b> (Variance Inflation factor)</li><li><b>Logit</b> and <b>Probit</b> models were used for classifying the subscription class</li><li>Achieved an <b>accuracy</b> of about <b>76% precision of 0.73</b> and <b>AUC of ROC curve, 0.85</b></li></ul>		
Data Mining	<b>Classify Sentiments from Movie Review</b> - To classify movie reviews into 5 classes <ul style="list-style-type: none"><li>Performed <b>Tokenization</b> and created <b>Word Clouds</b> of negative and positive movie reviews</li><li>Applied Feature Engineering using <b>Count Vectorizer</b> and <b>TF IDF vectorizer</b></li><li>Implemented <b>Logistic Regression, Random Forest</b> and <b>SGD</b> models</li></ul>		
Applied Machine Learning	<b>Heart Disease Classification using Supervised Learning</b> – <ul style="list-style-type: none"><li>Predict if any person is suffering from any heart disease from a dataset having 768 observations and 14 features</li><li><b>Preprocessed</b> by converting some categorical variables into dummy variables and scaling all the values</li><li>Applied <b>Logistic Regression, KNN</b> and <b>Random Forest</b> Classifier to achieve an accuracy of about 86%, 88% and 88% respectively</li></ul>		
Marketing Research	<b>Brand Comparison between PUMA, ADIDAS and NIKE footwear</b> - <ul style="list-style-type: none"><li><b>Research questions</b> – What role does <b>price</b> play while purchasing footwear? Which product is better on basis of build <b>features</b>? Is <b>variety</b> a vital factor while buying footwear? How do <b>discounts</b> offer work in simulating footwear purchase? What features of the current <b>advertisement campaign</b> are effective? What factors contribute to <b>switching to another brand</b>?</li><li>Conducted the online survey and performed various <b>parametric and non parametric tests</b> in SPSS to gather insights</li></ul>		
COURSEWORK AND SKILLS			
Data Mining and Knowledge Discovery   Operations Research   <b>Probability &amp; Statistics</b>   <b>Marketing Research</b>   Introduction to Computing (JAVA)   <b>Applied Machine Learning</b>   <b>Statistical Modelling for Business Analytics</b>			
Python(NumPy, Pandas, Matplotlib, Seaborn, Sklearn)   JAVA   SQL   MS Office			
SUMMER INTERNSHIP			
Intern at Harvest India Private Limited			(MAY-JUNE '20)
Building Footprint Regularization - <ul style="list-style-type: none"><li>Proposed a robust and effective polygon regularization algorithm consisting of a coarse and fine adjustment that transforms the segmented building boundary to structured footprints</li></ul>			
Programmable WhatsApp Messaging- <ul style="list-style-type: none"><li>To send an automatic payment update to the customer on receiving the payment using Twilio API for WhatsApp or SMS on mobile</li><li>Tested successfully in the sandbox environment</li></ul>			
ONLINE LEARNING AND CERTIFICATIONS			
SQL for Data Science by University of California			
POSITIONS OF RESPONSIBILITY			
Teaching Assistant, IIT Kanpur	Managed and provided support to a class of 40 students		Sept '20-Present
HOBBIES AND INTERESTS			
Football   Basketball   Badminton   Reading   Travelling			