

SEP 2024

ML Project - Coded (Election Vote Prediction)

Course: Machine Learning - 2

The project is to predict which party a citizen is going to vote for on the basis of their age and according to the answers given by the citizens to the questions asked in a survey conducted. Machine Learning techniques like Naive Bayes, KNN, and ensemble methods are used to draw inferences. Various performance metrics have been used to validate the performance of predictions on Test & Train sets. Also perform descriptive analysis based on the speeches by the election candidates.

Skills & Tools Covered

Naive Bayes K-Nearest Neighbor Ensemble Techniques Text Mining

Exploratory Data Analysis

AUG 2024

Coded Project - Predictive Modeling

Course: Predictive Modeling

This project has two parts a) Computer-activ Project using Linear Regression which aims to predict the percentage time the computer remains in user mode. b) Women's contraceptive Project using Classification techniques to classify how many women use or not use contraceptive

Skills & Tools Covered

Linear Regression Logistic Regression

JUN 2024

Segmentation using Clustering and PCA

Course: Machine Learning - 1

"The data collected has many variables which makes it difficult to find useful details without using Data Science Techniques. The very first step is to perform EDA and then performing Clustering, PCA as per the requirements in the data. 1. Digital Marketing Advertisement Data Segmentation using clustering techniques. 2. Identify Optimum Principal Components that explains the most variance in the Primary Census data."

Skills & Tools Covered

EDA Clustering PCA Data Mining Silhouette Score Segmentation

JUN 2024

Inferential Statistics Coded Project

Course: Inferential Statistics

Analyze the datasets provided and use the concepts of Inferential Statistics to solve business problems and answer specific questions - insights on stone suitability for printing, the effectiveness of a fitness program, and the impact of dentists and implant methods on metal implant hardness - to enable data-driven decision-making and operational improvements.

Skills & Tools Covered

Probability Joint Probability Conditional Probability Estimation Central Limit Theorem
 Hypothesis Testing ANOVA Probability Distribution

MAY 2024

Analyse and Explore Data and reflect the insights - SMDM Project**Course: Statistical Methods for Decision Making**

Problem 1 Austo Motor Company is a leading car manufacturer specializing in SUV, Sedan, and Hatchback models. In its recent board meeting, concerns were raised by the members on the efficiency of the marketing campaign currently being used. The board decides to rope in an analytics professional to improve the existing campaign. Problem 2 Frame an Analytics Problem on Go Digit Dataset

Skills & Tools Covered

Python Descriptive Statistics EDA Exploratory Data Analysis

Framing an Analytics Problem

My Learnings

||Problem 1 - Data Preprocessing and Cleaning: Understanding the importance of cleaning and preparing data for analysis. Descriptive Statistics: Learning how to summarize and describe the main features of a dataset. Exploratory Data Analysis (EDA): Developing skills to visualize and interpret data to uncover insights and patterns. Campaign Analysis: Gaining insights into the effectiveness of marketing campaigns and how to measure their ROI. Customer Segmentation: Learning how to segment customers to tailor marketing strategies effectively. ||Problem 2- Framing an Analytics Problem: Understanding how to define an analytics problem from a business context. Data Preprocessing and Cleaning: Learning the importance of data cleaning and preprocessing. Descriptive Statistics and EDA: Developing skills to describe and visualize data. Customer Segmentation: Learning how to segment customers for targeted marketing. Predictive Modeling: Gaining knowledge on building and evaluating machine learning models. Actionable Insights: Understanding how to derive insights from data to make informed business decisions. By following these steps and utilizing the provided code samples, I can

effectively analyze data to gain insights and make data-driven decisions for both Austo Motor Company and Go Digit.||

APR 2024

E-Commerce Revenue Management

Course: Python for Data Science

Solution of a business problem to identify which region has maximum sales volume, which type of products are sold the most, how much revenue the E-Commerce Company makes, and the brands that use its portal.

Skills & Tools Covered

numpy pandas visualization user defined functions

My Learnings

Data Manipulation with Pandas: Learn how to clean, preprocess, and analyze large datasets efficiently using Pandas. Numerical Computation with NumPy: Understand how to perform numerical operations and handle large arrays with NumPy. Data Visualization: Gain proficiency in visualizing data insights using Matplotlib and Seaborn to make data-driven decisions. Modular Programming: Develop skills in writing modular and reusable code using user-defined functions, enhancing code maintainability and readability. By following this approach, I can effectively analyze E-Commerce data to gain valuable business insights, helping the company make informed decisions to improve sales and marketing strategies.