

#### Harsh Alkesh Pandya in

Post Graduate Program in Data Science and Business Analytics

2021-2022



# COURSE PROJECTS

Dec'21

Recommending ways to increase revenue of a Grocery Store

## **Course Marketing & Retail Analytics**

The project involves conducting a thorough analysis of Point of Sale (POS) Data for providing recommendations through which a grocery store can increase its revenue by coming up with attractive combo & discount offers for customers.

#### **Skills and Tools**

Market Basket Analysis, Exploratory Data Analysis, KNIME, Python

Dec'21

Understanding Customers' Buying Patterns for an Automobile Parts Manufacturer

## **Course Marketing & Retail Analytics**

This project aims to find the underlying buying patterns of the customers of an automobile part manufacturer based on the past 3 years of the Company's transaction data and hence recommend customized marketing strategies for different segments of customers.

#### **Skills and Tools**

RFM, Exploratory Data Analysis, Python, KNIME

Nov'21

# Online retail Orders Analysis

## **Course SQL**

This project is based on the order management functionality of an online retail store in which you are provided with the "orders" database and you are asked some queries related toit. Answers to these queries will help the company in making data-driven decisions that will impact the overall growth of the online retail store.

#### **Skills and Tools**

Joins, Sub Queries, SQL-clauses-statements-conditions, SQLite using DB Browser and MySQL Workbench

Nov'21

Visualizing Insurance Claims using Tableau

## **Course Data Visualization using TABLEAU**

This project explored the art of problem-solving with the aid of visual analytics. Tableau's data visualization tools were used to create interactive dashboards to provide high-level insights to the CEO of an Insurance company to drive the company's policymaking

#### **Skills and Tools**

Business Intelligence, Tableau, Dashboard Designing

Oct'21

Forecasting Wine Sales for ABC Estate Wines Company

## **Course Time Series Forecasting**

Analyzed historical monthly sales data of a company. Created multiple forecast models for two different products of a particular Wine Estate and recommended the optimum forecasting model to predict monthly sales for the next 12 months along with appropriate lower and upper confidence limits.

### **Skills and Tools**

Exploratory Data Analysis for Time Series Data, Exponential Smoothing Models, ARIMA/SARIMA Models, Moving Average Models

Sep'21

# Election Exit Poll Prediction and U.S.A Presidential Speech Analysis using Machine Learning

## **Course Machine Learning**

This project is based on 2 case-studies: Vote Prediction and Text Analysis. The first 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. The second project is based on the analysis of the inaugural U.S.A. Presidential speeches. One has to draw inferences based on the analysis done on these speeches.

#### **Skills and Tools**

Text Mining Analytics, Support Vector Machine - K Nearest Neighbor - Naive Bayes, Ensemble Techniques, Logistic Regression - Linear Discriminant Analysis

Aug'21

# Gems & Holiday Package Prediction

## **Course Predictive Modeling**

This project is based on 2 cases studies: Gems Price Prediction and Holiday Package prediction. In the first case study, concepts of linear regression are tested and it is expected from the learner to predict the price of gems based on multiple variables to help company maximize profits. In the second case, concepts of logistic regression and linear discriminant analysis are tested. One has to predict if the customer will purchase the holiday package to target the relevant customer base.

#### **Skills and Tools**

Linear Regression, Logistic Regression, Linear discriminant Analysis

Jun'21

# Bank Customer Segmentation and Insurance Claim Prediction Course Data Mining

The project involved drawing inferences from 2 case studies, namely - Bank Marketing & Insurance. The concepts of Clustering, CART, Random Forest, and Artificial Neural Network are used to draw inferences from these case studies. Various performance metrics have been used to validate the performance of predictions on Test & Train sets.

#### **Skills and Tools**

Clustering, CART, Random Forest, Artificial Neural Networks

May'21

Drug Analysis using ANOVA and Principal Component Analysis on College Admissions Data

#### **Course Advanced Statistics**

The project involved drawing inferences from 2 case studies, namely - Hay Fever Drug Analysis, College Admissions Data. The concepts of Exploratory Data Analysis, Analysis of Variance, and Principal Component Analysis are used to draw inferences from these case studies.

#### **Skills and Tools**

ANOVA, PCA, EDA

Apr'21

Statistical & Probabilistic Analysis of Store Sales, University Survey, & Manufacturing data

## **Course Statistical Methods for Decision Making**

The project involved drawing inferences from 3 case studies, namely - Wholesale Customer Data (Store Sales), University Survey Data & Manufacturing Shingles Data. The concepts of various measures of Descriptive Statistics, Probability and Probability Distributions and various measures of Estimation & Hypothesis Testing are used to analyze these case studies.

#### **Skills and Tools**

Descriptive Statistics, Probability & Probability Distributions, Estimation, Hypothesis Testing

Mar'21

### Uber Drive

## **Course Python for Data Science**

The project is based on the trips made by Uber drivers. Different aspects of the trip are analyzed by using different functions in Python.

#### **Skills and Tools**

Python Functions, Data Interpretation

https://eportfolio.mygreatlearning.com/harsh-alkesh-pandya