Case study/1:- Netflix Recommendation System

Problem:- How can Netflix Recommend Persnolized movies or TV shows to user Based on their Preferences?

➔ Data science Process:-

1.Business Understanding:-

Goal:- The user had access to view joner movie, any regional movie in different Languages from any part of the world. Using internet user can access any movie From any where at any time.

Impact:-User don't have to go to theater to view every latest movie and don't Have to pay extra money for movie because user can watch movie on Netflix With minimum cost for one month.

2.Data Understanding:-

We can suggest on the basis of different actor's , region, languages , joner, Categories and they finding movies of their region. We can suggest movies Web series, podcast on the different user rating number of views number of Reviews for more user interaction. Using user history we can suggest more Movies ,webseriesor podcast.

3.Data Preparation:-

After collecting data from user experience, rating, no of views , feedback, Structuring data in perfect format , removing null values from dataset, removing Duplicate values from dataset , filtering data on the categories, plotting data to view The number of user interested in which jonar using heat map, different graphs, box Plotting.

4.Modeling:-

Using pre-processed dataset we will make model which will suggest the user most Favorable movies of different jonar from his history on the basis of selected jonar

We can use different type of algorithms like(linear regression, logistics, regression, Decision tree, Random forest algorithm and many more to suggest favorable Movies to user for better engagement.

5.Evaluation:-

Training model on different datasets of different user using different algorithm Like linear regression and many more and testing the generated output with With different testing formulas like Root mean square error(RMSE), Mean absolute Error(MAE) if the output value is closer to Zero the model is being trained very well If the output value is non zero than the model need to get more framed to get Accurate output.

6.Deployment:-

Using the created model in the suggestion section where the model will generate The same jonar which the user loves the more.

Case Study/2:- Predicting customer churn in Telecom Problem

Problem:-How can telecom company Predict which customer are likely to stop using their Service?

➔ Data Science Process:-

1. Business Understanding:

Goal: In this we have to understand that or predict that which customers are likely to stop their services.

Impact: If we will successfully able to predict and reduce customer chure then we can see a large positive impact on telecom company like increased revenue, reduced cost and improved customer value etc.

2. Data Understanding:

To prepare this predicting model we will collect raw data through interview, survey etc... and filter it based on the requirement. We will also analyze the contract type Internet services. And also monitor the monthly charges tenured which help us to spot any universal outlier. Here we can add some features like monthly charges and tenure in form of scale which will help in strong predictive. Power we can also show all these in the form of chart with different color in it.

3. Data Preparations:

After collecting data from user experience feedback structuring data in perfect chart format. We remove all null values from data set duplicate values etc… Then plotting data to view to number of user interested in which network using heat maps, different graphs, box plotting.

4. Modeling:

Using pre-processes dataset, we will make model which will suggest the user most proper Internet connection of different companies for different area. We use different type of algorithms like logistic regression use random forest to predict network.

5. Evaluation:

Making an algorithm which automatically conducts surveys in the rural area when the network fluctuates by the company which are not used by the users. Algorithm which will automatically

define the problem and will send the solution with the problem to the responsible person. And also make an automatic call for conducting survey. And the solution person use matrix like accuracy precision recall to solve the problem.

6. Deployment:

Automated call, Conduct survey provide alert for high risk customer to customer services team. Implement proactive offer and discount to retain customers.

Case Study/3:-Predictive Diabetes for Health Care:

Problem :-

Can we predict the likelihood of a patient developing diabetes based on their health indicates?

Data Science Process:

1. Business Understanding:

Goal: We can able for early detection of diabetes based on their health. Predict the diabetes so Dr will tell you as early as possible which type of care, treatment is needed.

Impact: We can improve patient outcomes by providing patients with different sources like in hospital clinic providing facilities to understand avoid high risk and low risk diabetes.

2. Data Understanding:

Explore different data set to check description features like BP, Glucose, Kidney Failure and analyze data that how many are diabetic and Non-diabetic patients. Identify relation between indicators diabetes outcomes like high glucose on BMI.

3. Data Platform:

After collecting data from user experience, rating, number of views, feedback removing null values from data set, duplicate values, filtering data and plotting graph to view the number of users interested in software using head map, different graph, box plotting.

4. Modeling:

Using pre-process dataset, we will make model which will suggest the user health to make his body better day by day. We use different type of algorithm like Random forest or xBoost for high accuracy complex relationship.

5. Evaluation:

Access Model performance using matrix like accuracy, precision, recall, F1 score and confusion matrix. Focus on recall to ensure high detection of diabetes patient use cross verification to check consistency and avoid overfitting.

6.Deployment:

Integrate the model into hospital/clinic system or model app for real time prediction. Provide early warning to Doctor for high risk patient.
