Report for Titanic-Machine Learning Disaster

Problem statement

Titanic - Machine Learning from Disaster

Aim:

Predict survival on the Titanic and get familiar with Machine Learning basics

Requirements

Titanic datasets, Machine Learning model, Python, Sklearn

Description:

In this project, there are two similar datasets that include passenger information like name, age, gender, socio-economic class, etc. One dataset is titled “train.csv” and the other is titled “test.csv”.

Train.csv will contain the details of a subset of the passengers on board (891 to be exact) and importantly, will reveal whether they survived or not, also known as the “ground truth”.

The `test.csv` dataset contains similar information but does not disclose the “ground truth” for each passenger. It’s our job to predict these outcomes.

Using the patterns, we find in the train.csv data, predict whether the other 418 passengers on board (found in test.csv) survived.

I have used three Machine Learning models which are Decision tree Classifier, Support Vector machine classifier (SVM), KNN classifier to solve the problem.

Results:

Data visualization tells that a greater number of males died than female.
There was three types of class and Class 3 people died more.

Maximum accuracy reached is 81% for given test data by SVM model and 82% for split train test data by KNN model.

For Given Test Data:

Model	Best_Score
Decision Tree Classifier	0.775
KNN	0.802
SVM	0.81

For Split Train Test Data:

Model	Accuracy
KNN	82%
SVM	80%