



Titanic-Matlab

Using Classification Learner in Matlab

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Abstract

In this Documentation we will give you a brief overview of how Machine Learning works and how you can use it in Matlab. More specifically we will talk about the classification learner in Matlab. This will give you a powerful tool for Data analysis and you can use the gained knowledge with the Regression Learner.

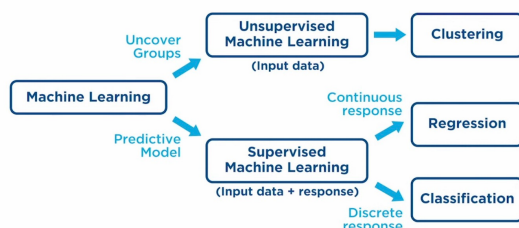
To do this we used a online Machine Learning Competition. [Kaggle-Titanic](#). It is a very popular Competition for people who are trying to get into Data Science. Therefore there are a lot of online guides for it. We combined the knowledge we gained from them for this report. The goal of the competition is to guess who survived the sinking of the Titanic and who did not. To help you guess you get a train.csv file with information about the people on board.

1	2	3	4	5	6	7	8	9	10	11	12
PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
1	0	3	Braund, M...	male	22	1	0	A/5 21171	7.2500		S

You use this data to train your Model. After developing your Model the true test comes. You run it using the test.csv file. This contains the same information but not whether or not the Passenger survived. To guess this you use your Model. How accurate this guess is, shows how good your model was developed

Introduction

You can group the Machine Learning the following way.



We will focus on the Classification of Supervised Learning. This means the output comes

out to be in one class. I.e. Survived or did not Survive. It could also be Apple, Banana or Orange. A Regression problem would f.e. be how much taxes you have to pay. I.e. 698.5 chf or 1045.7 chf. To do Supervised Machine Learning in Matlab we used the Classification Learner. Before diving in to that, we want to explain how the general Process of Machine Learning works. This graphic show the process.

