

✓ Which of the following algorithm doesn't uses learning Rate as one of its hyperparameter? 1/1

- ☒ Extra Trees ✓
- ☒ Random Forest ✓
- ☐ AdaBoost
- ☐ Gradient Boosting

✓ Which of the following algorithm are not an example of ensemble learning algorithm? 1/1

- ☐ Random Forest
- ☐ Gradient Boosting
- ☐ Adaboost
- ☒ Decision Trees ✓

✓ We can use gradient decent method for minimize the loss function. True or False 1/1

- ☒ True ✓
- ☐ False

✓ Which should be preferred among Gini impurity and Entropy while implementing in sklearn and why? 1/1

- ☐ Gini impurity because it gives a more balanced Tree
- ☒ Gini impurity because its faster ✓
- ☐ Entropy because it gives a more balanced Tree
- ☐ Entropy because its faster

✓ Which of the following types of node is not in Decision Trees?

1/1

- ☐ Decision node
- ☒ Atomic node
- ☐ Root node
- ☐ Leaf node



✗ How does a Decision Tree decide the threshold value to handle numerical features?

0/1

- ☐ Entropy
- ☐ Information Gain
- ☐ Gini impurity
- ☒ All of the above



Correct answer

- ☒ Information Gain

✗ How feature importance is calculated in random forest?

0/1

- ☐ In Random Forest package by passing parameter "type = prob" then instead of giving us the predicted class of the data point we get the probability.
- ☒ All of the above
- ☐ Optimize a tuning parameter that governs the number of features that are randomly chosen to grow each tree from the bootstrapped data.
- ☐ Feature importance is calculated as the decrease in node impurity weighted by the probability of reaching that node



Correct answer

- ☒ Feature importance is calculated as the decrease in node impurity weighted by the probability of reaching that node



✓ How do you improve random forest accuracy?

2/2

☒ Add more data



☒ Feature Selection



☒ Algorithm Tuning



☐ Putting less data

✓ Is XGBoost more time consuming than random forest?

1/1

☒ No



☐ Yes

✓ What are the advantages of XGBoost?

2/2

☒ It provides various intuitive features, such as parallelisation, distributed computing, cache optimisation, and more.



☒ XGB consists of a number of hyper-parameters that can be tuned – a primary advantage over gradient boosting machines.



☐ Like any other boosting method, XGB is sensitive to outliers.

☒ XGBoost has an in-built capability to handle missing values.



✓ XGBoost is slower than lightGBM but it achieves faster training through the Histogram binning process. True or False.

1/1

☒ True



☐ False

✓ Which of the following are correct

1/1

☐ XGBoost is a generic algorithm to find approximate solutions to the additive modeling problem, while AdaBoost can be seen as a special case with a particular loss function.



- ☒ All of the above ✓
- ☐ XGBoost is flexible compared to AdaBoost.
- ☐ Unlike XGBoost, AdaBoost can be implemented without the reference to gradients.

✓ Choose the NOT correct option

1/1

- ☐ CatBoost is easy to implement and very powerful.
- ☐ CatBoost is based on gradient boosting.
- ☒ XGBoost and LightGBM outperforms CatBoost ✓
- ☐ CatBoost provides excellent results in its very first run.

✓ Which algorithm can NOT handle categorical features on its own?

1/1

- ☐ None
- ☒ XGBoost ✓
- ☐ CatBoost
- ☐ LightGBM

✓ If the random state is not specified before, you will get a different result each time you iterate. True or False. 1/1

- ☒ True ✓
- ☐ False

Questions Based on Graded Assignment

10 of 13 points

✓ We plotted the Correlation Matrix. Now find out the most correlated features. 1/1

- ☒ rolloff_mean and spectral_centroid_mean ✓
- ☐ spectral_centroid_mean and mfcc2_mean
- ☐ spectral_bandwidth_mean and mfcc2_mean
- ☐ rolloff_mean and mfcc2_mean



✓ Now find out the least correlated features. Remember, we consider the absolute values while talking about correlation. 1/1

- ☒ harmony_mean and chroma_stft_mean ✓
- ☐ mfcc11_mean and rms_mean
- ☐ rms_mean and chroma_stft_mean
- ☐ harmony_mean and rms_mean

✓ Which class has the highest frequency? 1/1

- ☐ Blues
- ☒ All of these ✓
- ☐ Jazz
- ☐ Reggae

✓ Features with the most outliers 1/1

- ☐ zero_crossing_rate_var
- ☒ harmony_mean ✓
- ☐ perceptr_mean
- ☐ rms_var

✗ Score for AdaBoost with hyperparameters: n_estimators=1000 & random_state=0 0/1

- ☐ 0.32
- ☒ 0.31 ✗
- ☐ 0.84
- ☐ 0.67

Correct answer



☒ 0.32

✓ Score for Random Forest with hyperparameters: n_estimators=1000, max_depth=10, random_state=0 2/2

☐ 0.90

☐ 0.87

☐ 0.81

☒ 0.84 ✓

✓ Score for XGBClassifier with hyperparameters: n_estimators=1000 & learning_rate = 0.05 2/2

☐ 0.90

☐ 1.00

☐ 0.83

☒ 0.87 ✓

✗ You found the classification matrix. Now find out the class which had the highest Precision. 0/1

☐ Pop

☐ Classical

☐ Reggae

☒ Metal ✗

Correct answer

☒ Pop

✓ Now find out the class which had the highest Recall. Hint for both these questions: sklearn.metrics.classification_report 1/1

☐ Reggae

☒ Disco ✓



☐ Hip-Hop

☐ Metal

✓ Most important feature

1/1

☐ spectral_bandwidth_mean

☐ spectral_centroid_mean

☐ mfcc4_mean

☒ perceptr_var



✗ Least Important Feature

0/1

☐ length

☐ harmony_mean

☐ mfcc11_var

☒ mfcc14_var



Correct answer

☒ length

You've reached the end of the quiz

0 of 0 points

I have read all my answers and this is my final submission. *

☒ YES

This content is neither created nor endorsed by Google. - [Terms of Service](#) - [Privacy Policy](#).

Google Forms

