

How to Plot the Decision Trees (Sales /Marketing/Finance) from XGBoost Classifier

#DataTraining #DeepLearning

In this article, I am going to show you how to plot the decision trees generated by XGBoost models. First, we have to install graphviz (both python library and executable files)

```
1 !pip install graphviz
2 !apt-get install graphviz
```

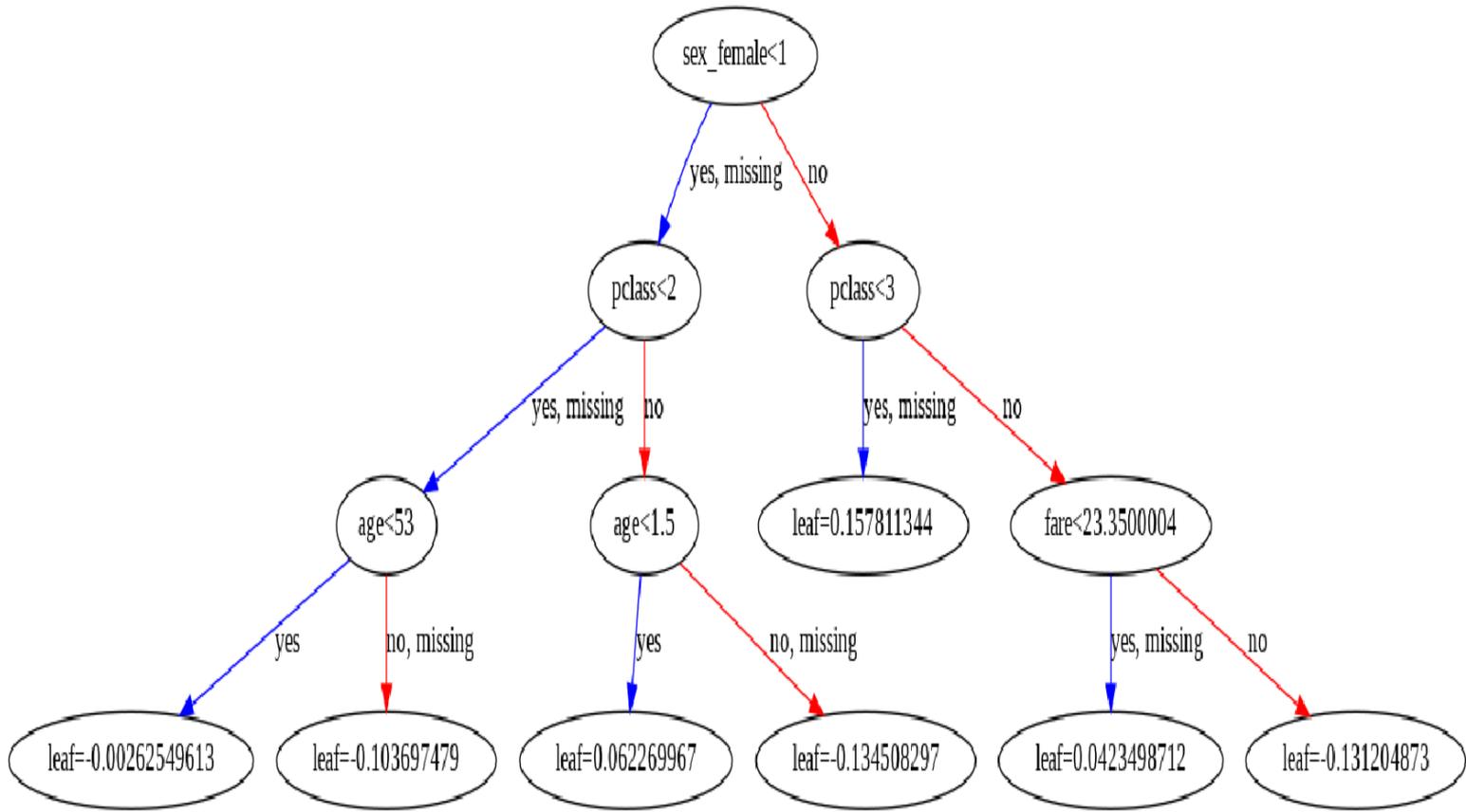
When the graphviz library is installed, we can train an XGBoost model (in this example, I am going to train it using the Titanic dataset).

```
1 from xgboost import XGBClassifier
2 from xgboost import plot_tree
3 #(...) other imports
4
5 #(...) loading the dataset and data preprocessing
6
7 model = XGBClassifier()
8 model.fit(X_train, y_train, verbose=True, eval_set=[(X_test, y_test)])
```

To display the trees, we have to use the plot_tree function provided by XGBoost.

It is important to change the size of the plot because the default one is not readable. The num_trees indicates the tree that should be drawn not the number of trees, so when I set the value to two, I get the second tree generated by XGBoost.

```
1 plot_tree(model, num_trees=1)
2 fig = plt.gcf()
3 fig.set_size_inches(30, 15)
```



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