# Using XGBoost to Classify Wine

Run the Model

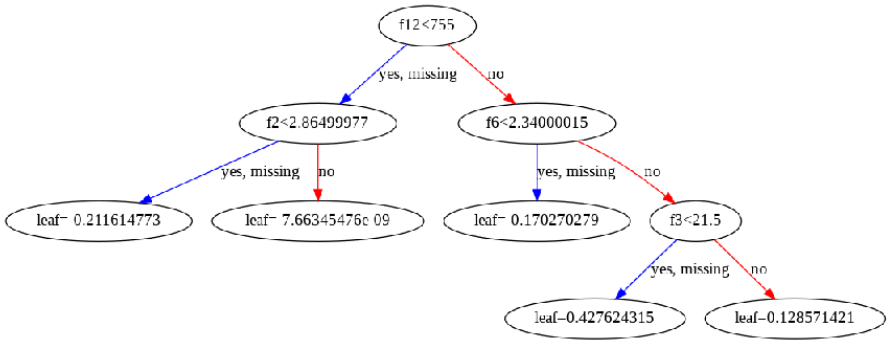
```
[7]  import numpy as np
     from sklearn.metrics import precision_score, recall_score, accuracy_score

     preds = model.predict(D_test)
     best_preds = np.asarray([np.argmax(line) for line in preds])

     print("Accuracy = {}".format(accuracy_score(Y_test, best_preds)))
     print("Precision = {}".format(precision_score(Y_test, best_preds, average='macro')))
     print("Recall = {}".format(recall_score(Y_test, best_preds, average='macro')))
```

```
Accuracy = 0.9722222222222222
Precision = 0.9629629629629629
Recall = 0.9791666666666666
```

You can see the model is producing high accuracy on test data

Plot the Decision Tree

```
[8]  from xgboost import plot_tree
     import matplotlib.pyplot as plt
     plt.rcParams["figure.figsize"] = (50,6)
     plot_tree(model)
     plt.show()
```




**Attributions:**

Original data provided by sklearn is here.

My code is located at my GitHub site.

A graphical depiction of the decision tree provides immediate insights