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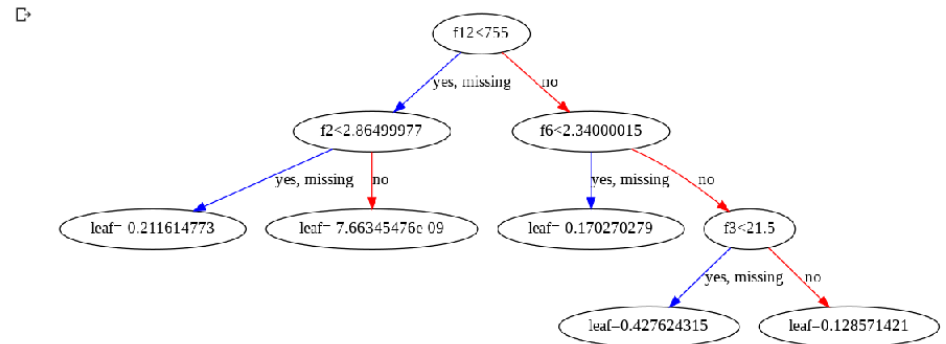
You can see the model is producing high accuracy on test data

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