training_time

November 9, 2021

[1]:
```
import numpy as np
import pandas as pd

from sklearn.ensemble import AdaBoostClassifier
from model.adaboost import BinaryAdaBoost
from sklearn.model_selection import train_test_split
```

[2]:
```
# read data
data = pd.read_csv("data/covtype.csv")
X = data.drop("Cover_Type", axis=1).values
y = data["Cover_Type"].values - 1

# extract sample
Xsample, _, Ysample, _ = train_test_split(X, y, stratify=y, train_size=10000,␣
 ↪random_state=0)

# trasnsform in binary label
Ysample[Ysample!=1]=-1
```

[3]:
```
%%time
model = BinaryAdaBoost(T=100)
model.fit(Xsample, Ysample)
```

```
CPU times: user 1.24 s, sys: 31.4 ms, total: 1.27 s
Wall time: 1.28 s
```

[3]:
```
<model.adaboost.BinaryAdaBoost at 0x7ffb7792c130>
```

[4]:
```
%%time
model = AdaBoostClassifier(n_estimators=100)
model.fit(Xsample, Ysample)
```

```
CPU times: user 919 ms, sys: 7.22 ms, total: 927 ms
Wall time: 927 ms
```

[4]:
```
AdaBoostClassifier(n_estimators=100)
```

[ ]:
```

```