

```
1 import pandas as pd
2 import numpy as np
3 from sklearn.model_selection import train_test_split
4 from sklearn.preprocessing import LabelEncoder, StandardScaler
5
6 # Source: https://medium.com/@sdoshi579/classification-of-music-into-different-genres-
  using-keras-82ab5339efe0
7
8 # Read in dataset
9 data = pd.read_csv('GTZAN Genre Classification\GTZAN Dataset\data.csv')
10 data.head()
11
12 # Drop unnecessary columns
13 data = data.drop(['filename'], axis = 1)
14 data.head()
15
16 # Encode genres into integers
17 genre_list = data.iloc[:, -1]
18 encoder = LabelEncoder()
19 y = encoder.fit_transform(genre_list)
20 print(y)
21
22 # Normalizing the dataset
23 scaler = StandardScaler()
24 X = scaler.fit_transform(np.array(data.iloc[:, :-1], dtype = float))
25 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2)
26
27 # Store the data
28 np.save('GTZAN Genre Classification\GTZAN Dataset\X_train.npy', X_train)
29 np.save('GTZAN Genre Classification\GTZAN Dataset\X_test.npy', X_test)
30 np.save('GTZAN Genre Classification\GTZAN Dataset\y_train.npy', y_train)
31 np.save('GTZAN Genre Classification\GTZAN Dataset\y_test.npy', y_test)
32
33
34
```