```python
# normalizando
scaler = Normalizer()
scaler.fit(X)
X = scaler.transform(X)
```

```python
scores = []
for i in range(2000):
    X_train, X_test, y_train, y_test = train_test_split(X,y)
    model = KNeighborsClassifier()
    model.fit(X_train,y_train)
    precisao = model.score(X_test,y_test)
    scores.append(precisao)
```

```python
print("Média: {:.2f}%".format(np.mean(scores)*100))
print("Desvio padrão: {:.2f}%".format(np.std(scores)*100))
```

```python
import matplotlib.pyplot as plt
import seaborn as sns
sns.distplot(scores)
plt.yticks([])
plt.title("Acurácias do k-NN")
plt.show()
```

```
Média: 96.88%
Desvio padrão: 2.71%
```