jupyter DBMI practical3 Last Checkpoint: 18 minutes ago

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Code

[1]:
```
import numpy as np
import pandas as pd
from sklearn.decompositio
from sklearn.preprocessin
from sklearn.datasets impo
import matplotlib.pyplot a

data = load_iris()
X = pd.DataFrame(data.data
y = data.target

scaler = StandardScaler()
X_scaled = scaler.fit_tra


n_components = 2
pca = PCA(n_components=n_
X_pca = pca.fit_transform

explained_variance = pca.e
print("Explained Variance
print("Cumulative Explaine
```

```
Explained Variance Ratio: [0.72962445 0.22850762]
Cumulative Explained Variance: [0.72962445 0.95813207]
```

[3]:
```
plt.figure(figsize=(8, 6))
for target, color, label in zip(np.unique (y), ['r', 'g', 'b'], data.target_names):
    plt.scatter( X_pca[y == target, 0],
                 X_pca [y == target, 1],
                 color=color, label=label, alpha=0.7
```