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In [37]: import pandas as pd
import matplotlib.pyplot as plt
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In [38]: pure = pd.read_csv("../reports/logistic_regression.csv")
pca = pd.read_csv("../reports/pca_then_lr.csv")
```

```
In [39]: pure.head()
pca.head()
```

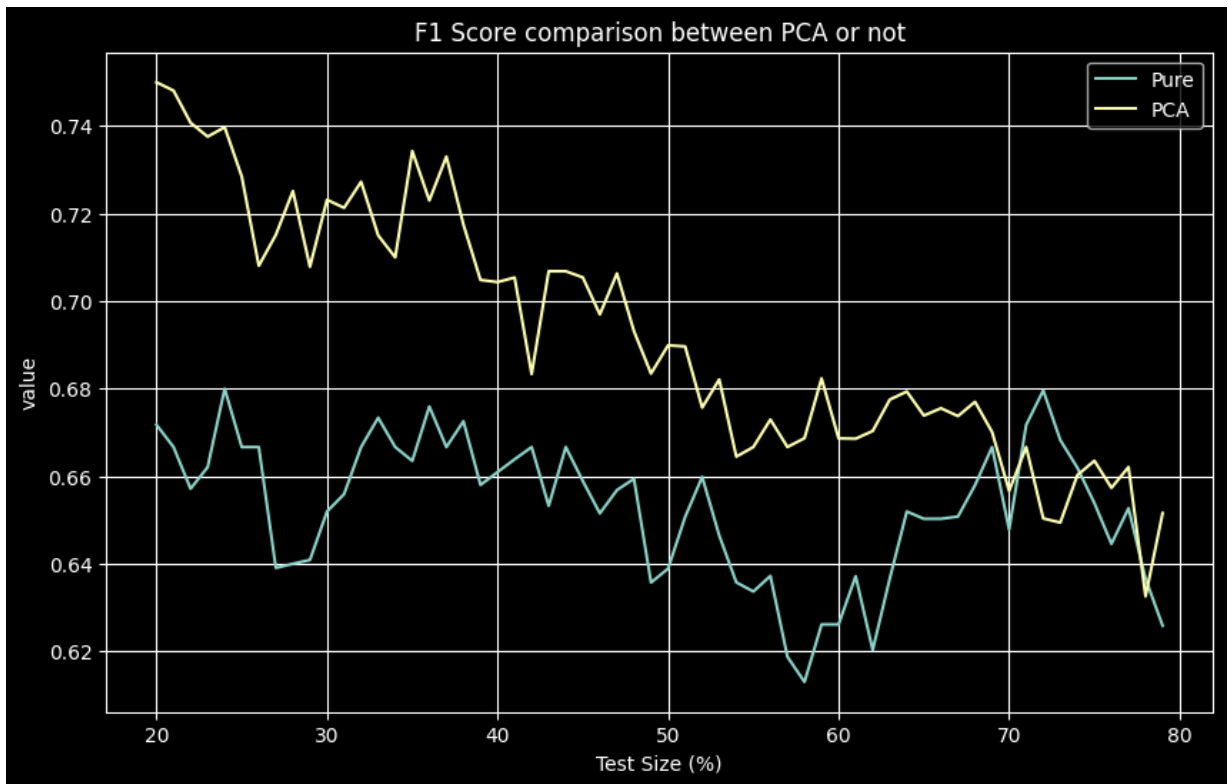
```
Out[39]:
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	Iteration	F1 Score	Accuracy	Precision	Recall
0	20	0.750000	0.753846	0.705882	0.800000
1	21	0.748092	0.759124	0.710145	0.790323
2	22	0.740741	0.755245	0.694444	0.793651
3	23	0.737589	0.753333	0.693333	0.787879
4	24	0.739726	0.756410	0.692308	0.794118

```
In [40]: plt.style.use('dark_background')
plt.figure(figsize=(10, 6))
plt.plot(pure['Iteration'], pure['F1 Score'], label='Pure')
plt.plot(pca['Iteration'], pca['F1 Score'], label='PCA')

plt.xlabel('Test Size (%)')
plt.ylabel('value')

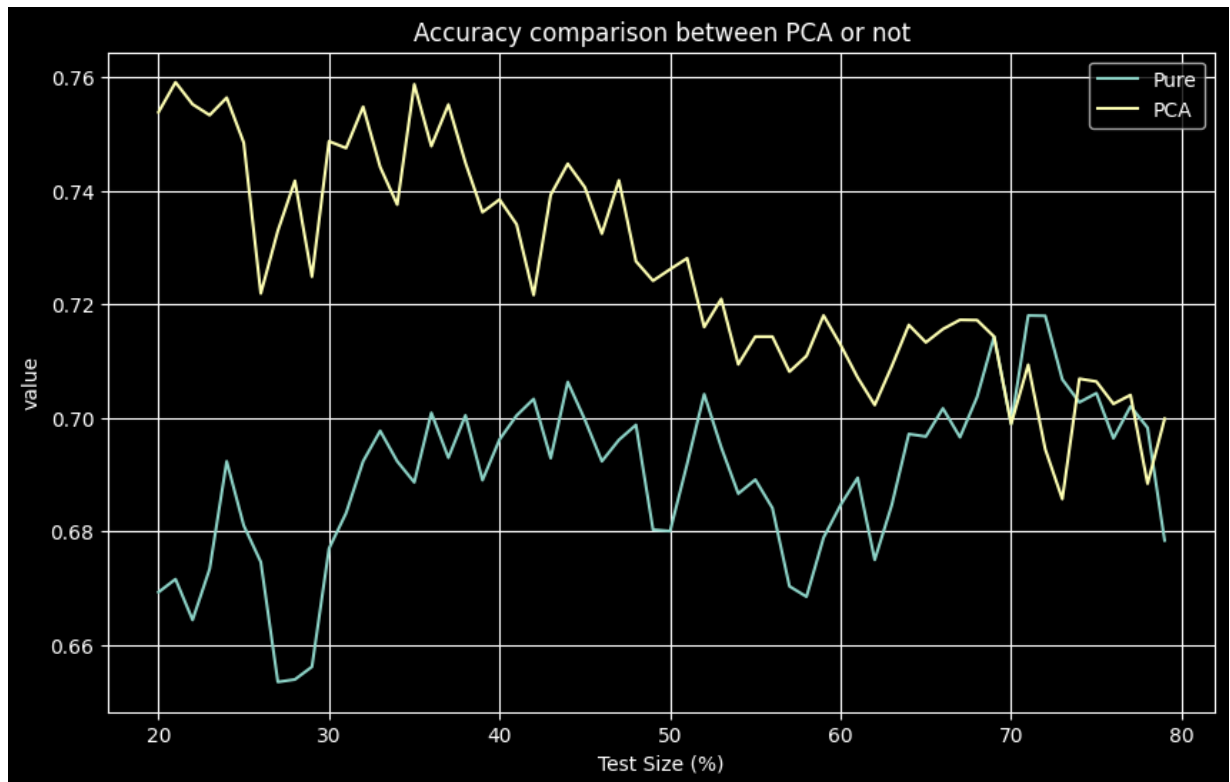
plt.title('F1 Score comparison between PCA or not')
plt.legend()
plt.grid(True)
plt.savefig('../plots/F1 Score comparison between PCA or not.png')
plt.show()
```



```
In [41]: plt.style.use('dark_background')
plt.figure(figsize=(10, 6))
plt.plot(pure['Iteration'], pure["Accuracy"], label='Pure', )
plt.plot(pca['Iteration'], pca['Accuracy'], label='PCA')

plt.xlabel('Test Size (%)')
plt.ylabel('value')

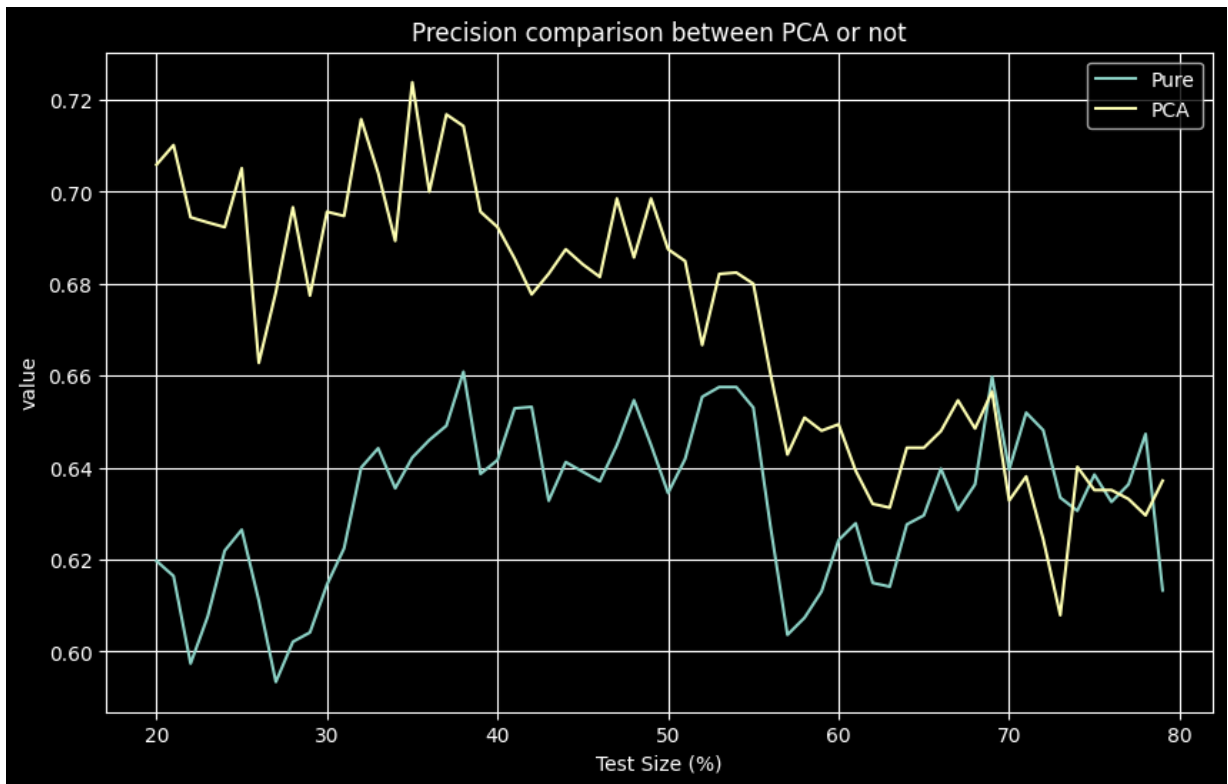
plt.title('Accuracy comparison between PCA or not')
plt.legend()
plt.grid(True)
plt.savefig('../plots/Accuracy comparison between PCA or not.png')
plt.show()
```



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In [42]: plt.style.use('dark_background')
plt.figure(figsize=(10, 6))
plt.plot(pure['Iteration'], pure["Precision"], label='Pure', )
plt.plot(pca['Iteration'], pca['Precision'], label='PCA')

plt.xlabel('Test Size (%)')
plt.ylabel('value')

plt.title('Precision comparison between PCA or not')
plt.legend()
plt.grid(True)
plt.savefig('../plots/Precision comparison between PCA or not.png')
plt.show()
```



```
In [43]: plt.style.use('dark_background')
plt.figure(figsize=(10, 6))
plt.plot(pure['Iteration'], pure["Recall"], label='Pure', )
plt.plot(pca['Iteration'], pca['Recall'], label='PCA')

plt.xlabel('Test Size (%)')
plt.ylabel('value')

plt.title('Recall comparison between PCA or not')
plt.legend()
plt.grid(True)
plt.savefig('../plots/Recall comparison between PCA or not.png')
plt.show()
```

