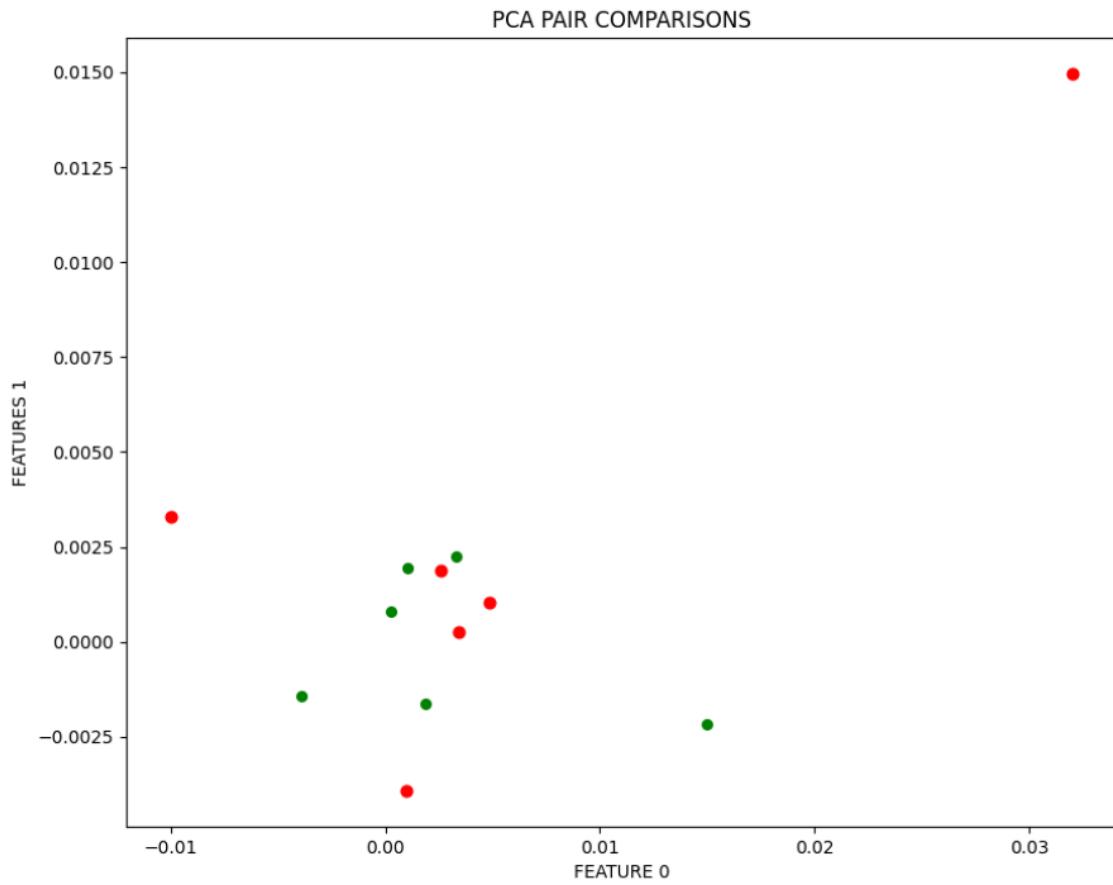
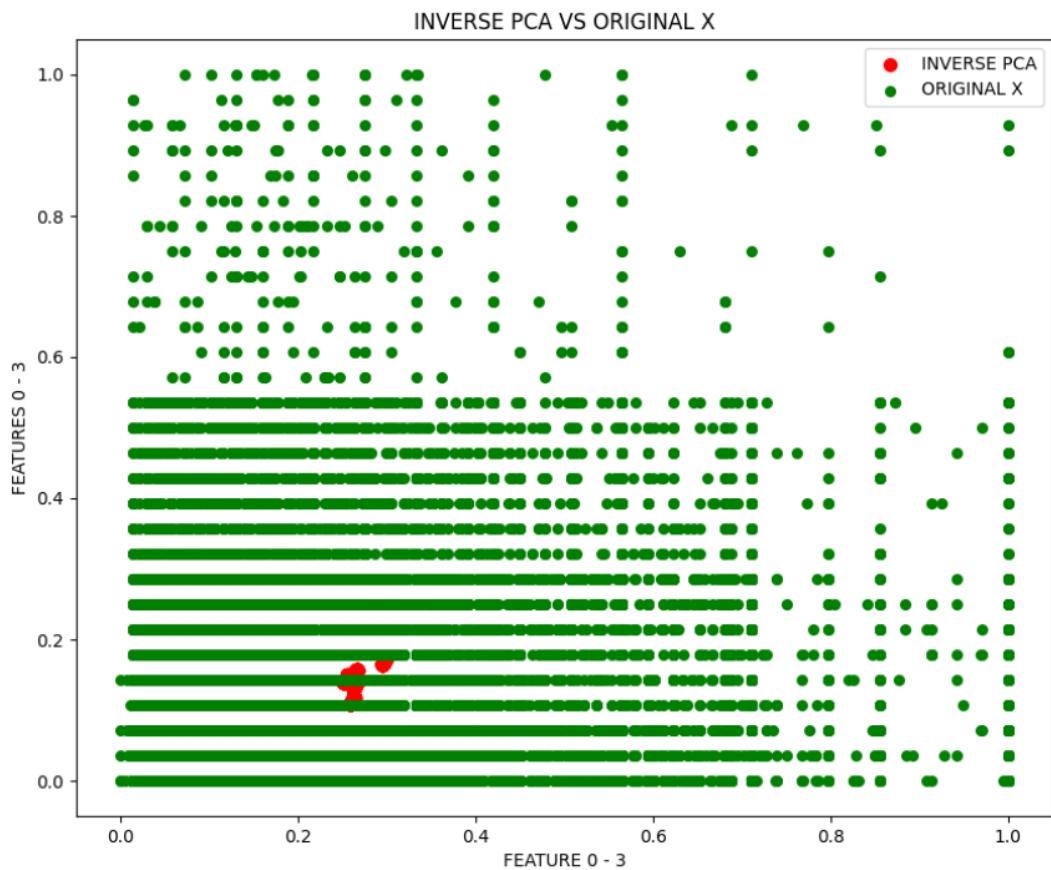


```
plt.figure(figsize=(10,8))
plt.scatter(v, variance_ratio, c='red', s=40, label='VARIANCE RATIO')
plt.scatter(v, cumsum, c='green', s=30, label='CUMULATIVE')
plt.title('VARIANCE RATIO VS CUMULATIVE')
plt.xlabel('VARIANCE INDEX')
plt.ylabel('VALUES')
plt.legend()
plt.show()
```



```
plt.figure(figsize=(10,8))
plt.scatter(component[:,0], component[:,1], c='red', s=40)
plt.scatter(component[:,1], component[:,2], c='green', s=30)
plt.xlabel('FEATURE 0')
plt.ylabel('FEATURES 1')
plt.title('PCA PAIR COMPARISONS')
plt.show()
```



```
plt.figure(figsize=(10,8))
plt.scatter(inverse_pca[:,0], inverse_pca[:,3], c='red', s=50, label='INVERSE PCA')
plt.scatter(x[:,0], x[:,3], c='green', s=30, label='ORIGINAL X')
plt.xlabel('FEATURE 0 - 3')
plt.ylabel('FEATURES 0 - 3')
plt.title('INVERSE PCA VS ORIGINAL X')
plt.legend()
plt.show()
```