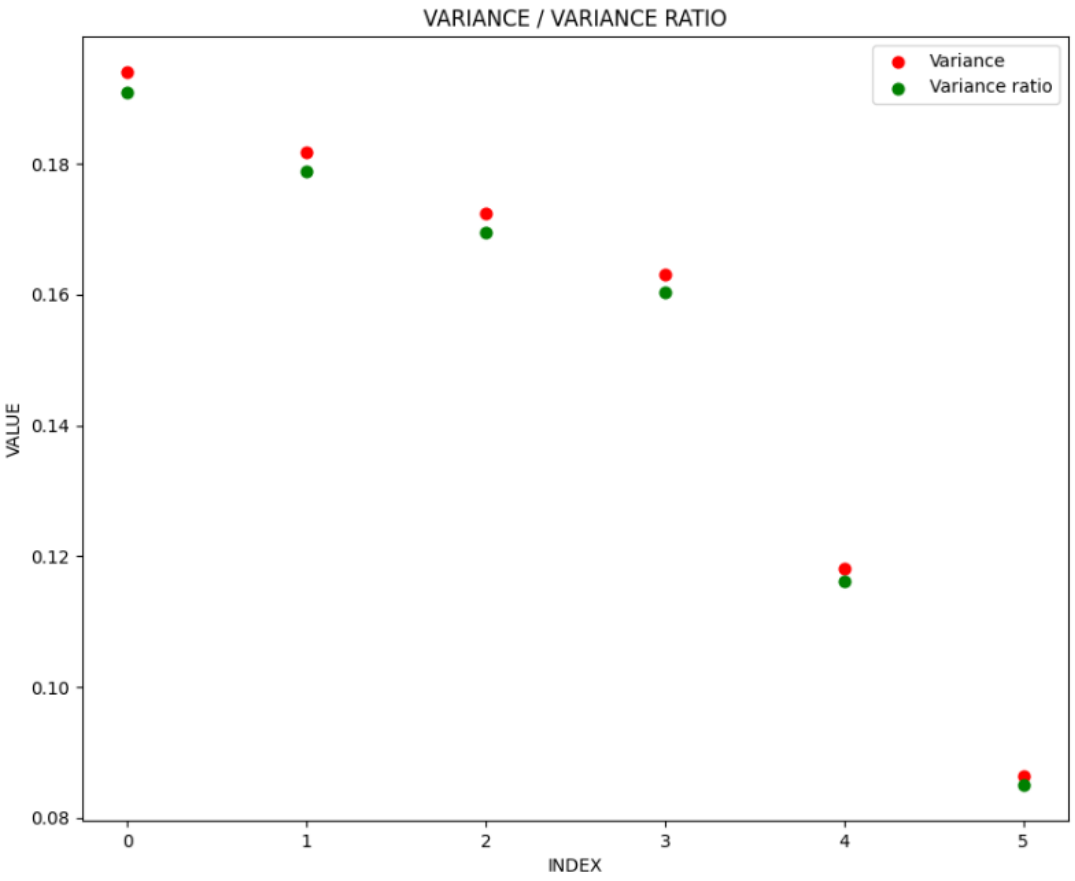
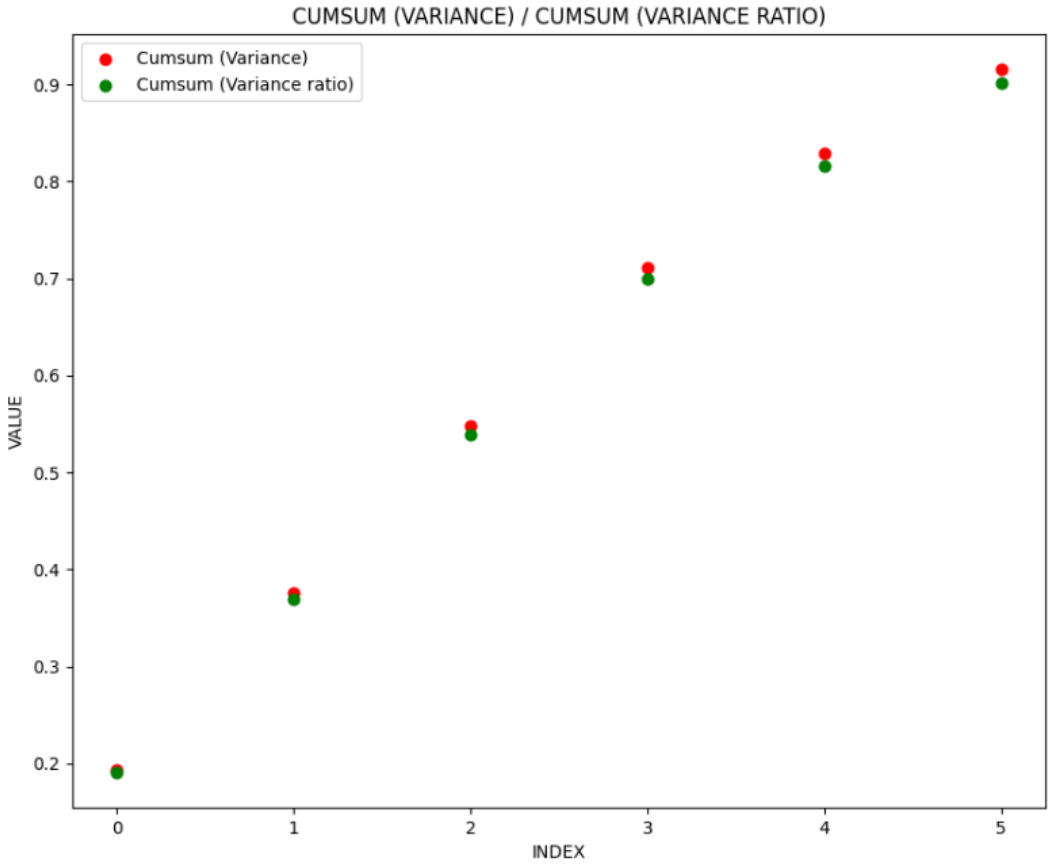
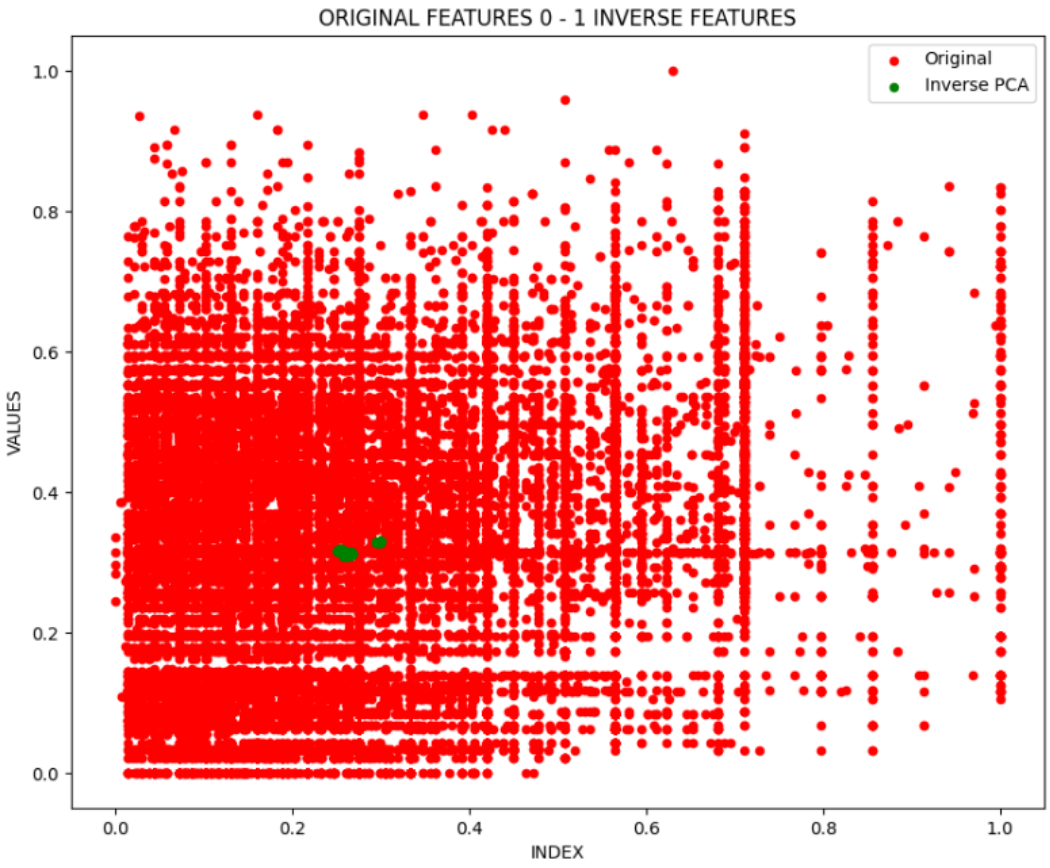


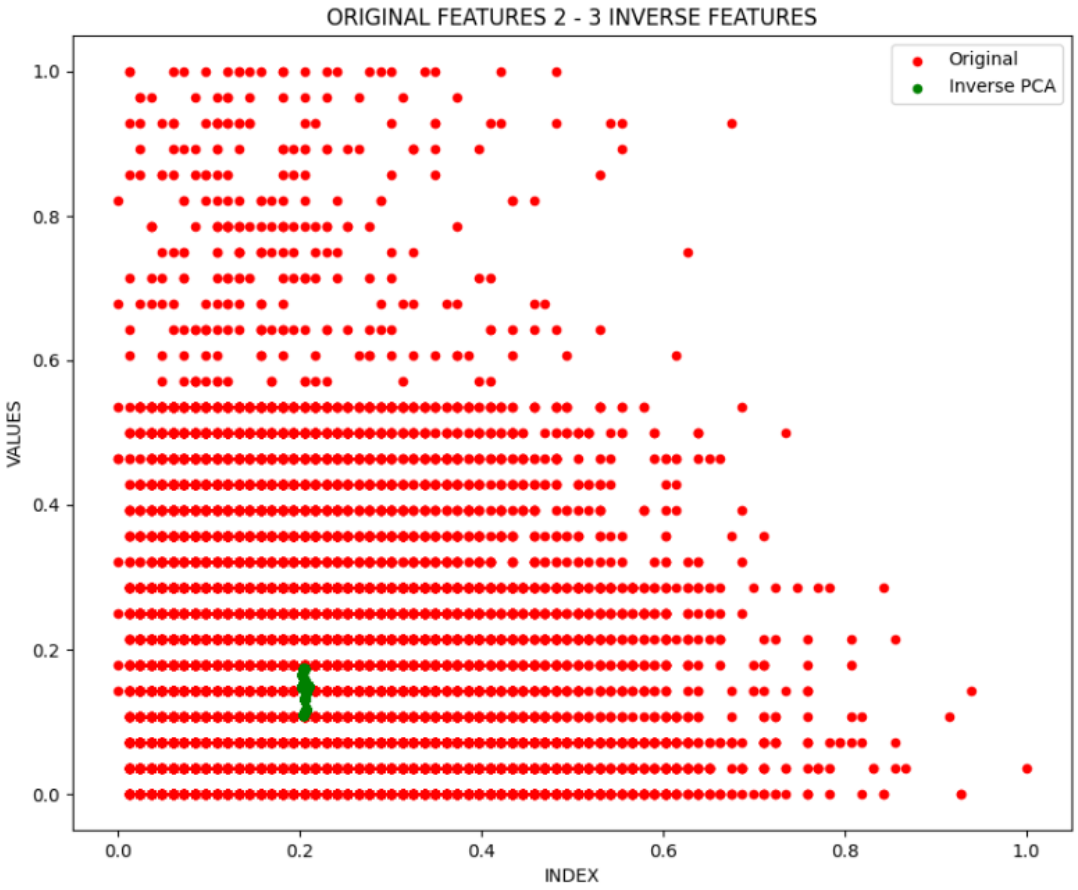

```
plt.figure(figsize=(10,8))
plt.scatter(v_index, v_value, c='red', s=40,label='Variance')
plt.scatter(v_index, vr_value, c='green', s=40,label='Variance ratio')
plt.legend()
plt.title('VARIANCE / VARIANCE RATIO')
plt.xlabel('INDEX')
plt.ylabel('VALUE')
plt.show()
```



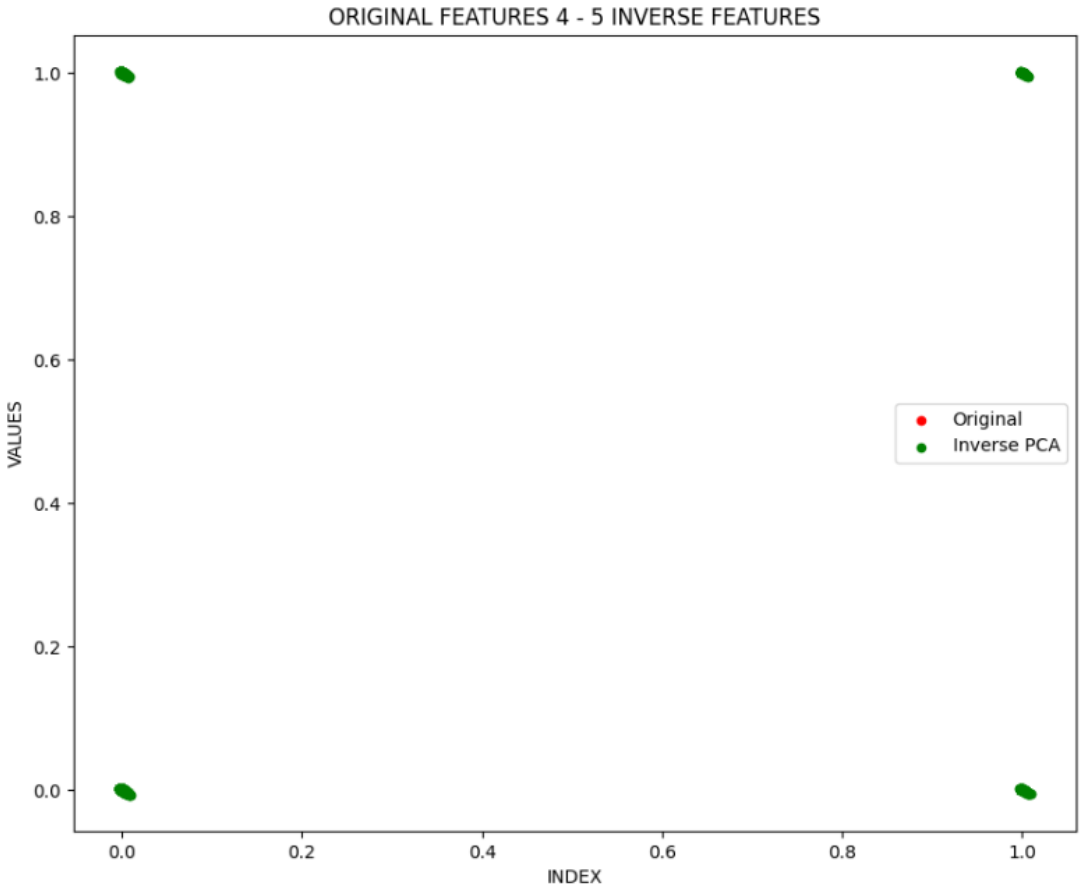

```
plt.figure(figsize=(10,8))
plt.scatter(c_index, c_value,c='red', s=40, label='Cumsum (Variance)')
plt.scatter(c_index, cr_value, c='green', s=40, label='Cumsum (Variance ratio)')
plt.legend()
plt.title('CUMSUM (VARIANCE) / CUMSUM (VARIANCE RATIO)')
plt.xlabel('INDEX')
plt.ylabel('VALUE')
plt.show()
```



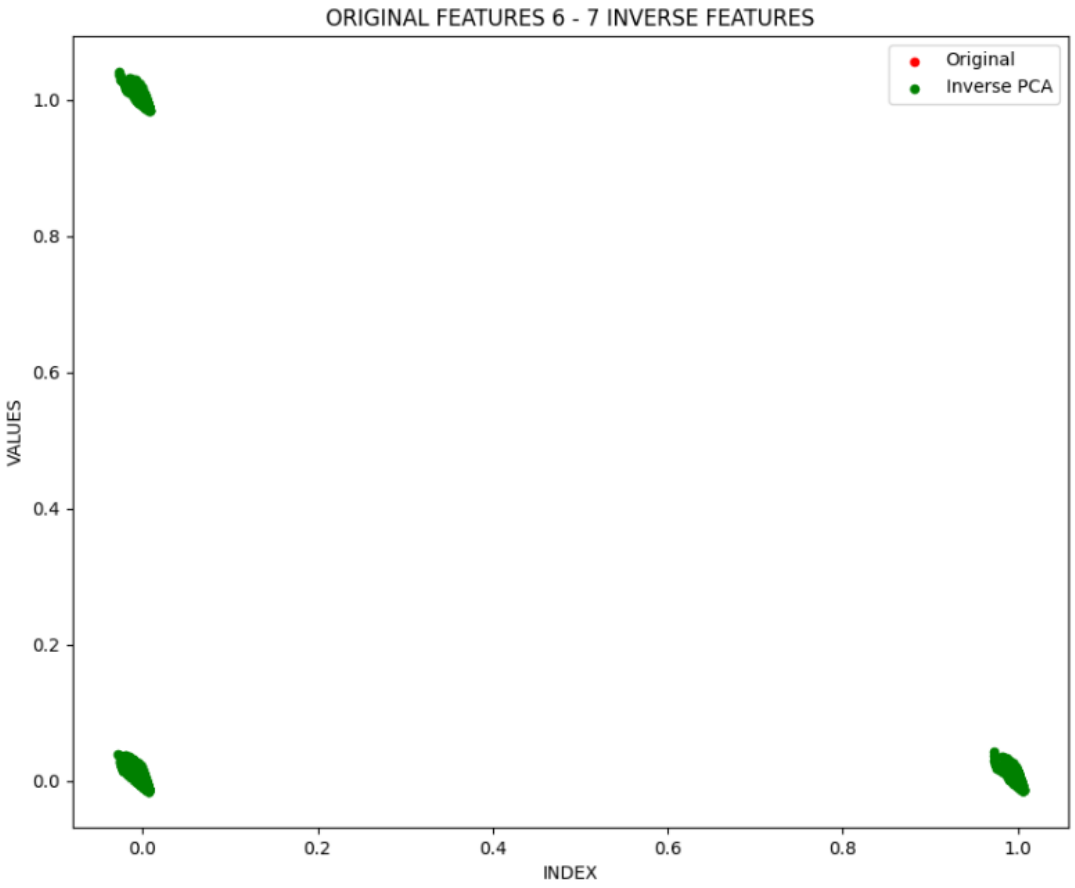

```
plt.figure(figsize=(10,8))
plt.scatter(i_x[:,0], i_x[:,1], c='red', s=20, label='Original')
plt.scatter(inverse_xpca[:,0], inverse_xpca[:,1], c='green', s=20, label='Inverse PCA')
plt.legend()
plt.title('ORIGINAL FEATURES 0 - 1 INVERSE FEATURES')
plt.xlabel('INDEX')
plt.ylabel('VALUES')
plt.show()
```



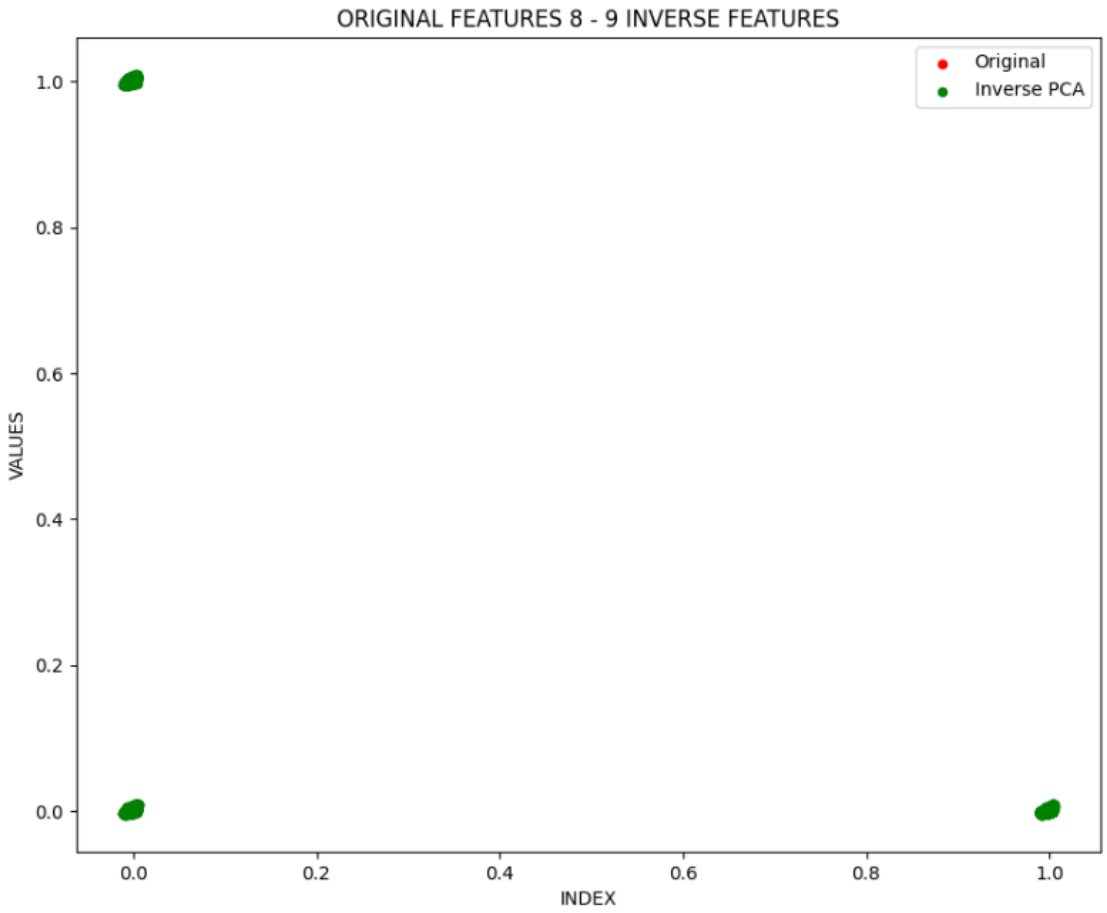

```
plt.figure(figsize=(10, 8))
plt.scatter(i_x[:,2], i_x[:,3], c='red', s=20, label='Original')
plt.scatter(inverse_xpca[:,2], inverse_xpca[:,3], c='green', s=20, label='Inverse PCA')
plt.legend()
plt.title('ORIGINAL FEATURES 2 - 3 INVERSE FEATURES')
plt.xlabel('INDEX')
plt.ylabel('VALUES')
plt.show()
```




```
plt.figure(figsize=(10, 8))
plt.scatter(i_x[:, 4], i_x[:, 5], c='red', s=20, label='Original')
plt.scatter(inverse_xpca[:, 4], inverse_xpca[:, 5], c='green', s=20, label='Inverse PCA')
plt.legend()
plt.title('ORIGINAL FEATURES 4 - 5 INVERSE FEATURES')
plt.xlabel('INDEX')
plt.ylabel('VALUES')
plt.show()
```




```
plt.figure(figsize=(10, 8))
plt.scatter(i_x[:, 6], i_x[:, 7], c='red', s=20, label='Original')
plt.scatter(inverse_xpca[:, 6], inverse_xpca[:, 7], c='green', s=20, label='Inverse PCA')
plt.legend()
plt.title('ORIGINAL FEATURES 6 - 7 INVERSE FEATURES')
plt.xlabel('INDEX')
plt.ylabel('VALUES')
plt.show()
```




```
plt.figure(figsize=(10, 8))
plt.scatter(i_x[:, 8], i_x[:, 9], c='red', s=20, label='Original')
plt.scatter(inverse_xpca[:, 8], inverse_xpca[:, 9], c='green', s=20, label='Inverse PCA')
plt.legend()
plt.title('ORIGINAL FEATURES 8 - 9 INVERSE FEATURES')
plt.xlabel('INDEX')
plt.ylabel('VALUES')
plt.show()
```