

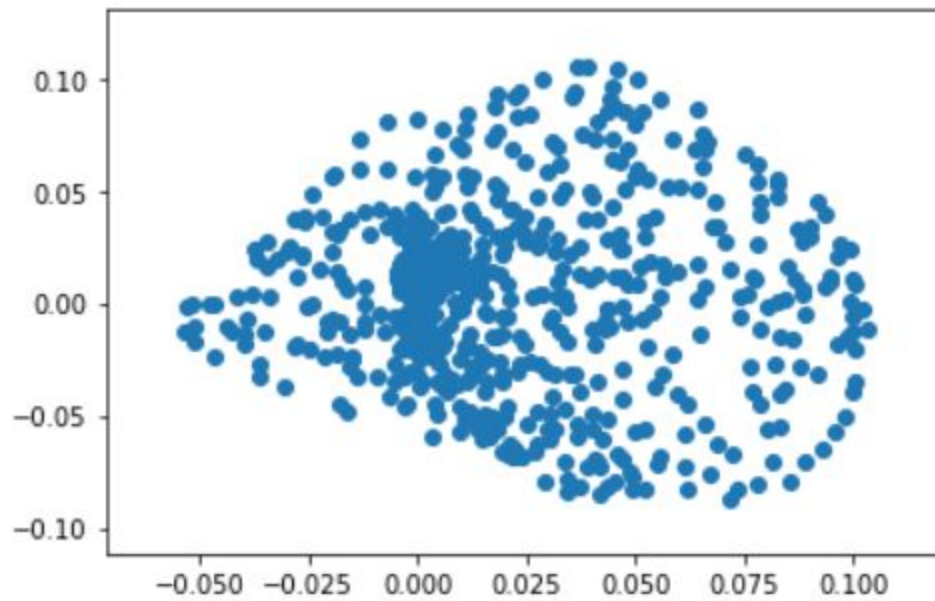
Assignment 2

By Dibyendu Roy Chaudhuri

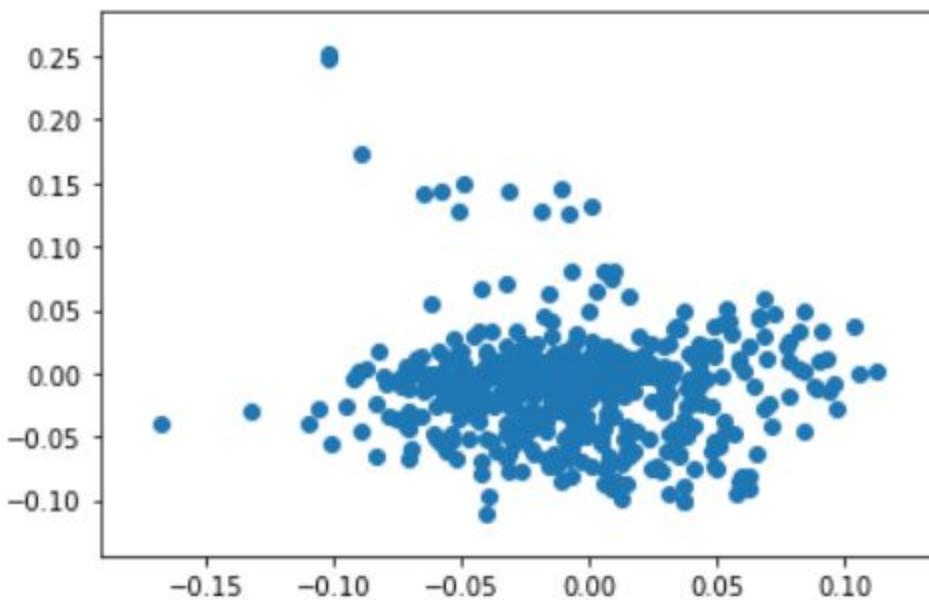
MT19034

Q1)

Scatter Plot after PCA



Scatter Plot after FDA



PCA eigen energy vs Accuracy

PCA eigen energy	Accuracy
70 percent	81.57
80 percent	80.66
90 percent	74.87
95 percent	73.09
99 percent	65.49

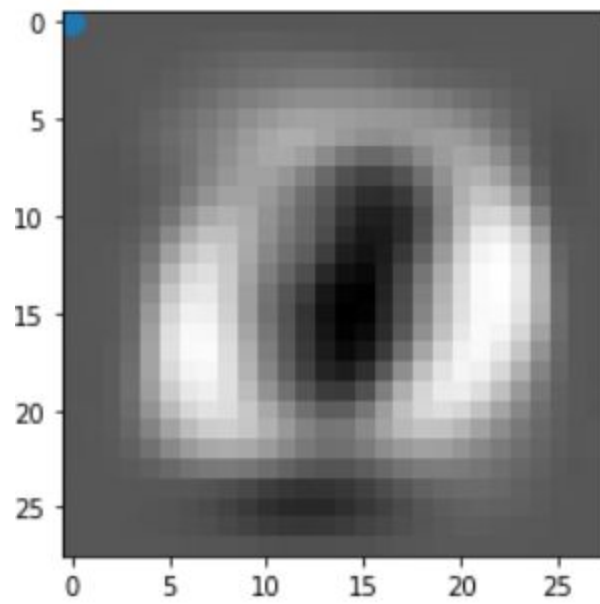
Accuracy after only FDA

Accuracy is 77.75

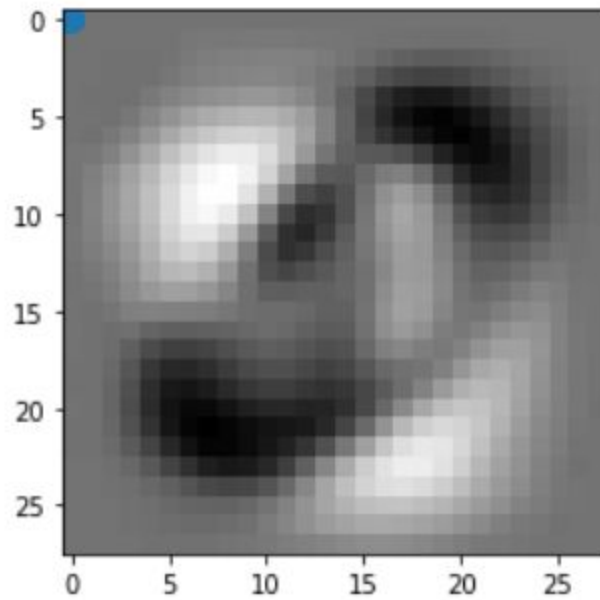
Accuracy after PCA followed by FDA

Accuracy is 78.23

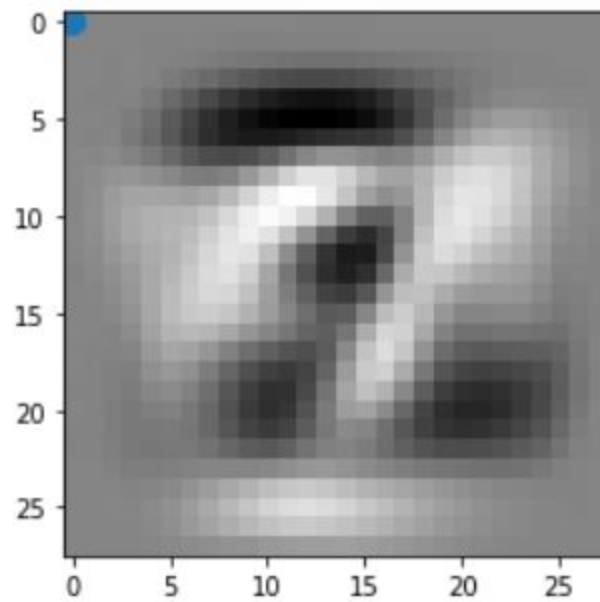
Eigen vectors by PCA



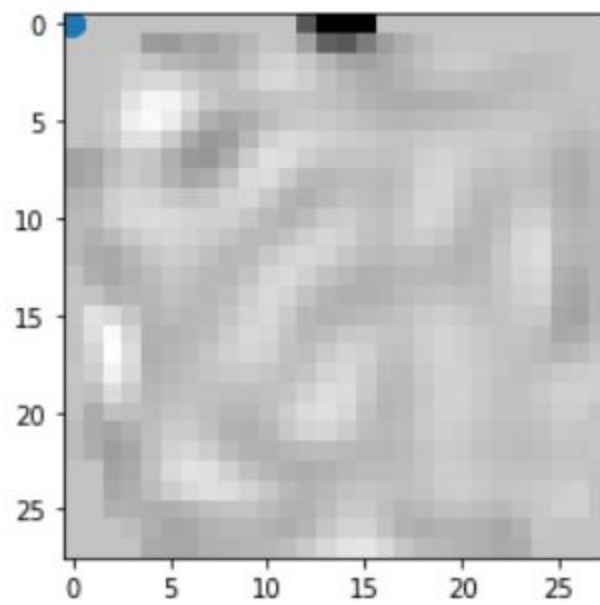
Vector 1



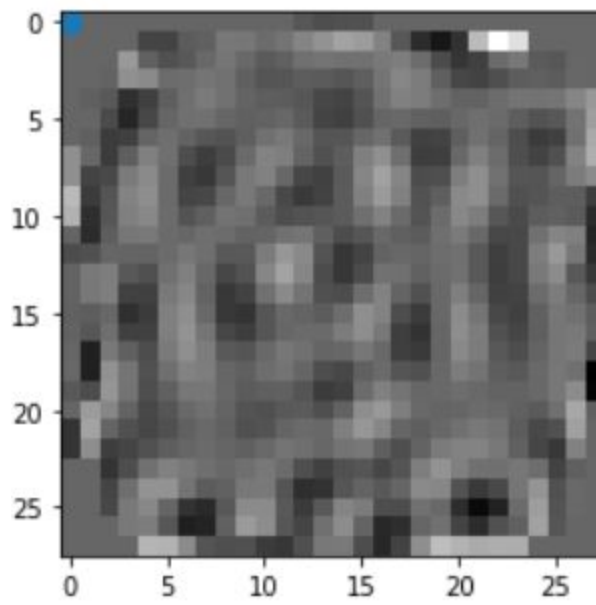
Vector 2



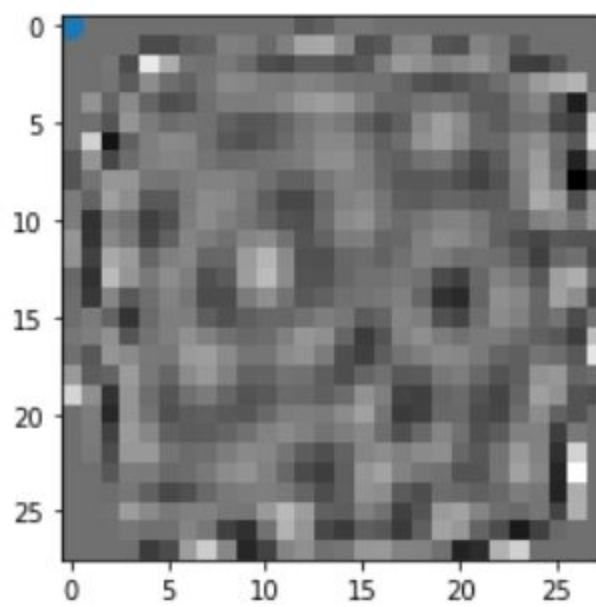
Vector 3



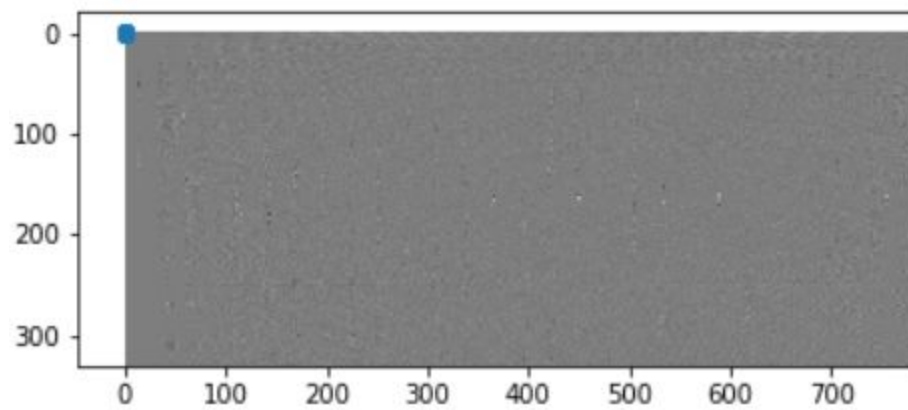
Vector 50



Vector 100



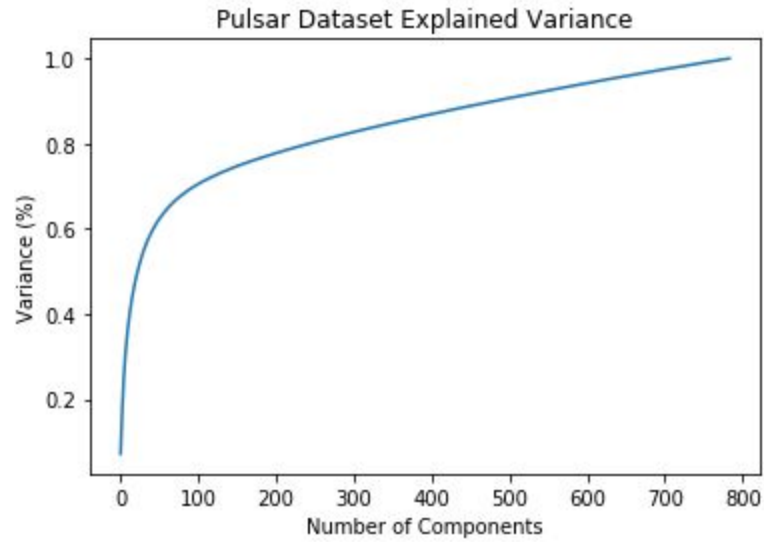
Vector 150



All vector at 95 energy

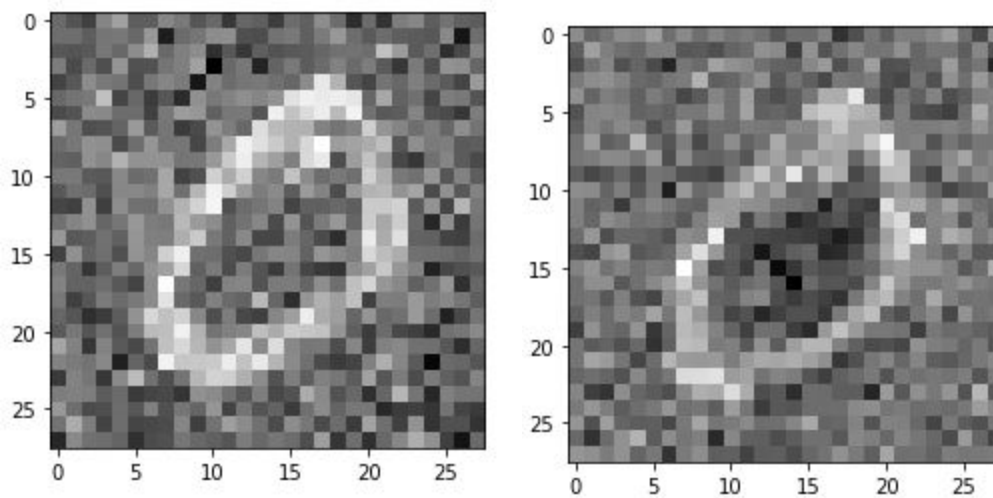
Q2)

Number components vs Accuracy on PCA



Plot is generated by Inbulit Sklearn Library

Some pairs of image before and after noise reductions



Before

After



Before



After



Before



After