

Wednesday, 8 June 2022

## Accuracies For Various Processes

Method	Accuracy
K-Means Clustering	53%
GMM	35%
K-means → K-means	49%
PCA(2) → K-Means	42.75%
PCA(2) → GMM	40.72%
PCA(12) → K-Means	60%
PCA(21) → GMM	55.19%

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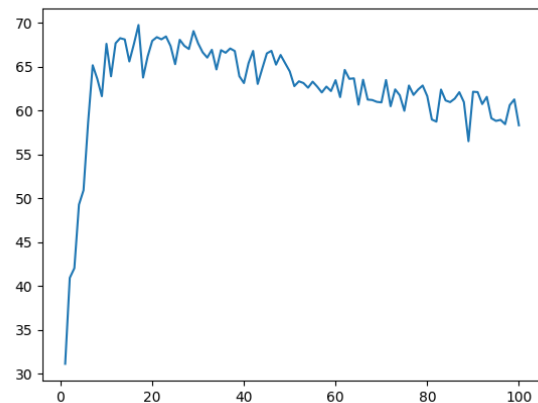
### PCA → GMM For PCA dimensions ranging from 1 to 100

The accuracies are given in 1.pdf.

Parameters of the clustering:

1. max\_iter = 100
2. Covariance\_type= 'full'
3. Training set size = 60k
4. Testing set size = 10k

The average accuracy is 62.6385. The highest accuracy is for dimension = 16, and the accuracy is 69.73.



Accuracy for various dimensions of PCA applied to MNIST dataset