

End-term Assignment: **MNIST Dataset: Digit Recognizer**

CS: 235

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I used KNN or K-nearest neighbour algorithm to implement my handwritten-digit classifier.

I checked the accuracy of my model with different values of K as shown below:

```
k=1, accuracy=97.10%  
k=3, accuracy=97.19%  
k=5, accuracy=97.10%  
k=7, accuracy=96.81%  
k=9, accuracy=96.74%
```

I found that I could achieve the highest accuracy with K=3 of **97.19%**.

A scatterplot in the first two principal components of the data:

