**Name – Siddhanth Nagrath**

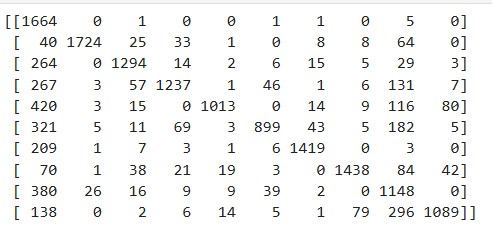
**Roll no - 102203686**

**ELC Activity – Handwritten Digit Recognition**

# Case1: K=2, and split=60:40

Accuracy=0.7693452380952381

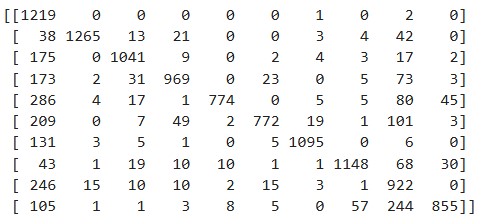
& Confusion Matrix=



# Case2: K=2, and split=70:30

Accuracy= 0.7984126984126985

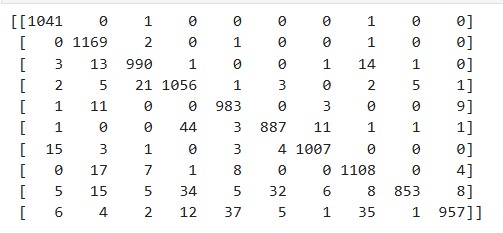
& Confusion Matrix=



# Case3: K=2, and split=75:25

Accuracy= 0.9572380952380952

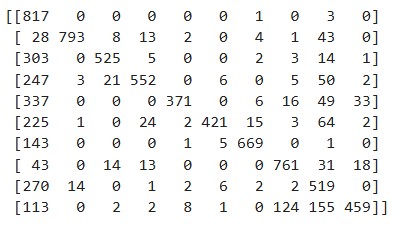
& Confusion Matrix=



# Case4: K=2, and split=80:20

Accuracy= 0.7008333333333333

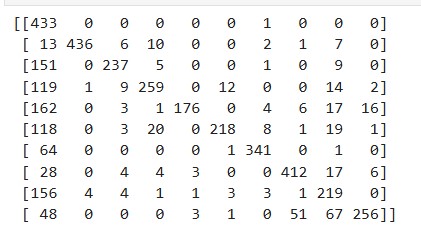
& Confusion Matrix=



# Case5: K=2, and split=90:10

Accuracy= 0.7111904761904762

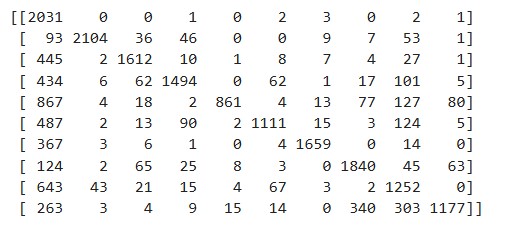
& Confusion Matrix=



# Case6: K=2, and split=95:5

Accuracy= 0.721

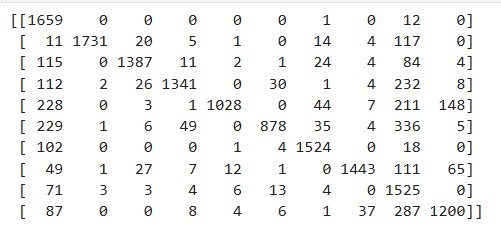
& Confusion Matrix=



# Case7: K=4, and split=60:40

Accuracy= 0.8164285714285714

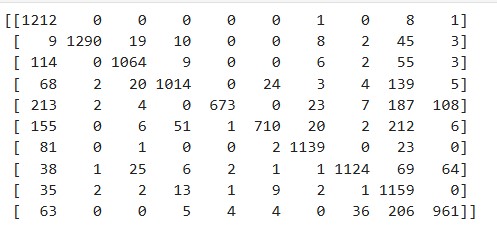
& Confusion Matrix=



# Case8: K=4, and split=70:30

Accuracy= 0.8211111111111111

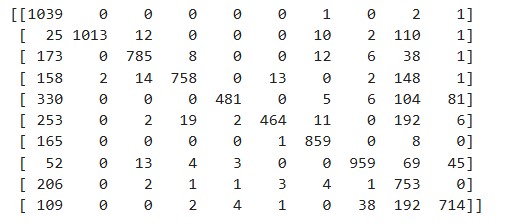
& Confusion Matrix=



# Case9: K=4, and split=75:25

Accuracy= 0.7452380952380953

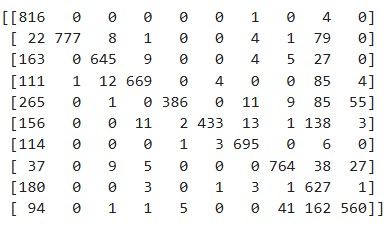
& Confusion Matrix=



# Case10: K=4, and split=80:20

Accuracy= 0.7585714285714286

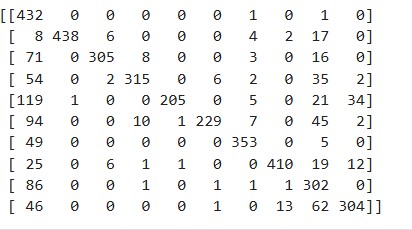
& Confusion Matrix=



# Case11: K=4, and split=90:10

Accuracy= 0.784047619047619

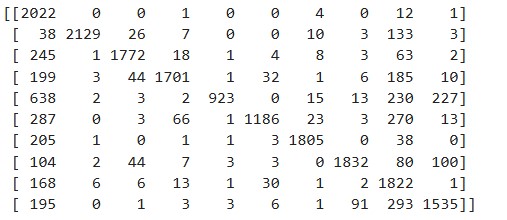
& Confusion Matrix=



# Case12: K=4, and split=95:5

Accuracy= 0.7965238095238095

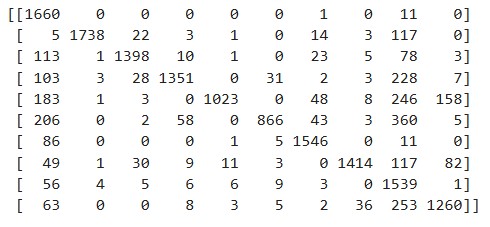
& Confusion Matrix=



# Case13: K=5, and split=60:40

Accuracy= 0.8211309523809524

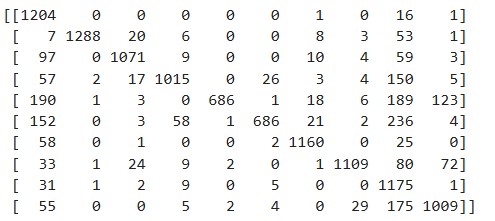
& Confusion Matrix=



# Case14: K=5, and split=70:30

Accuracy= 0.8256349206349206

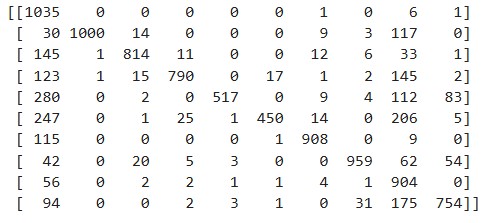
& Confusion Matrix=



# Case15: K=5, and split=75:25

Accuracy= 0.7743809523809524

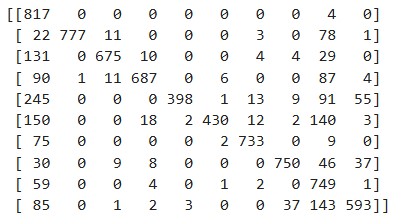
& Confusion Matrix=



# Case16: K=5, and split=80:20

Accuracy= 0.7867857142857143

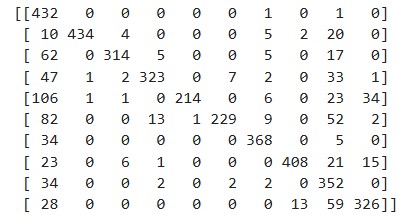
& Confusion Matrix=



# Case17: K=5, and split=90:10

Accuracy= 0.8095238095238095

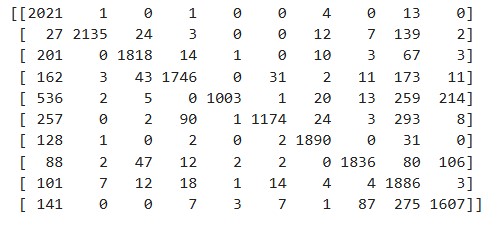
& Confusion Matrix=



# Case18: K=5, and split=95:5

Accuracy= 0.815047619047619

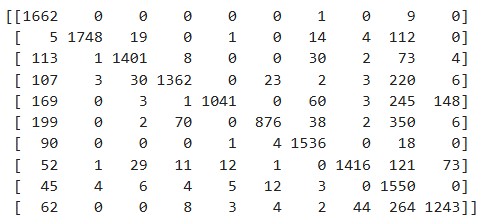
& Confusion Matrix=



# Case19: K=6, and split=60:40

Accuracy= 0.8235119047619047

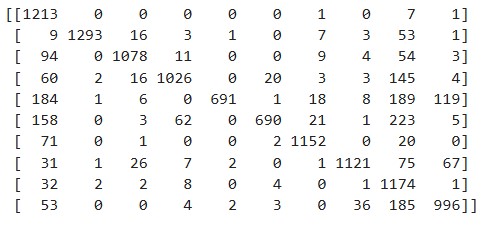
& Confusion Matrix=



# Case20: K=6, and split=70:30

Accuracy= 0.8280952380952381

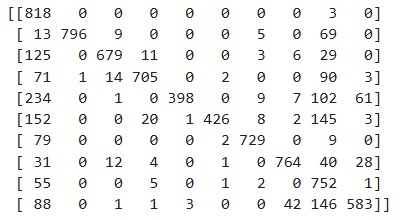
& Confusion Matrix=



# Case21: K=6, and split=75:25

Accuracy= 0.7916666666666666

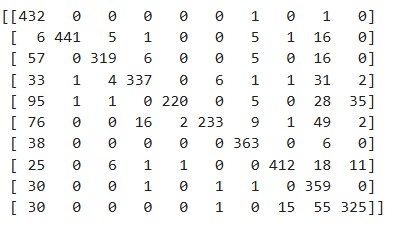
& Confusion Matrix=



# Case22: K=6, and split=90:10

Accuracy= 0.8192857142857143

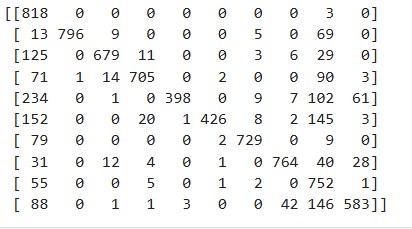
& Confusion Matrix=



# Case23: K=6, and split=80:20

Accuracy= 0.7916666666666666

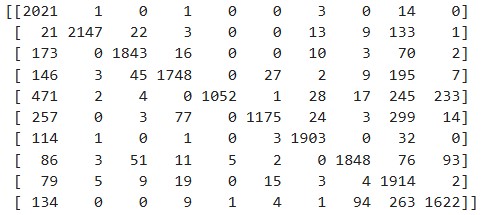
& Confusion Matrix=



# Case24: K=6, and split=95:5

Accuracy= 0.8225238095238095

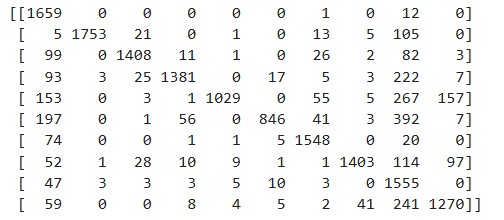
& Confusion Matrix=



# Case25: K=7, and split=60:40

Accuracy= 0.8245238095238095

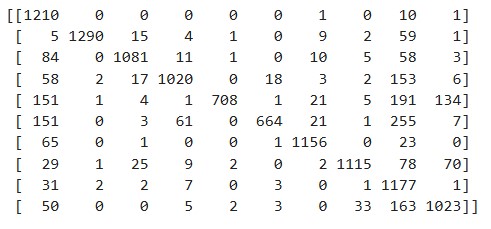
& Confusion Matrix=



# Case26: K=7, and split=70:30

Accuracy= 0.8288888888888889

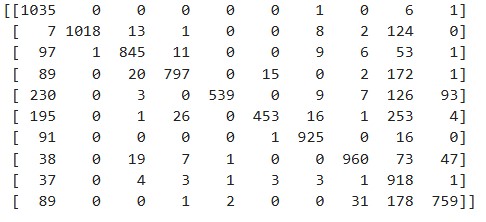
& Confusion Matrix=



# Case27: K=7, and split=75:25

Accuracy= 0.7856190476190477

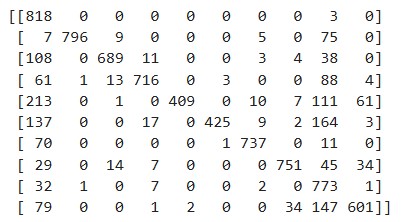
& Confusion Matrix=



# Case28: K=7, and split=80:20

Accuracy= 0.799404761904762

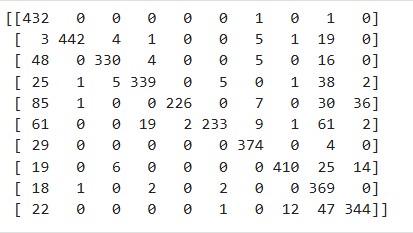
& Confusion Matrix=



# Case29: K=7, and split=90:10

Accuracy= 0.8330952380952381

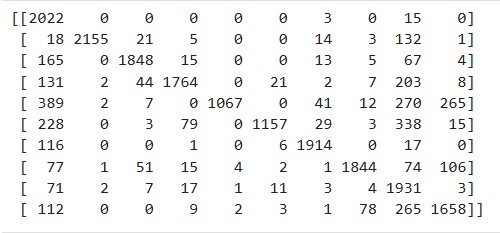
& Confusion Matrix=



# Case30: K=7, and split=95:5

Accuracy= 0.8266666666666667

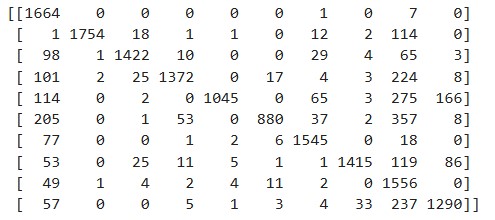
& Confusion Matrix=



# Case31: K=10, and split=60:40

Accuracy= 0.8299404761904762

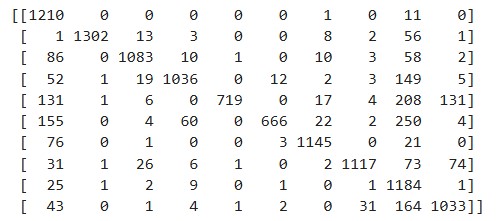
& Confusion Matrix=



# Case32: K=10, and split=70:30

Accuracy= 0.832936507936508

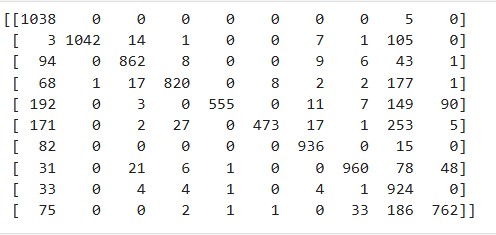
& Confusion Matrix=



# Case33: K=10, and split=75:25

Accuracy= 0.7973333333333333

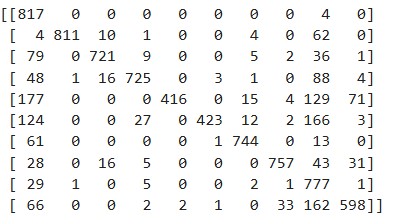
& Confusion Matrix=



# Case34: K=10, and split=80:20

Accuracy= 0.8082142857142857

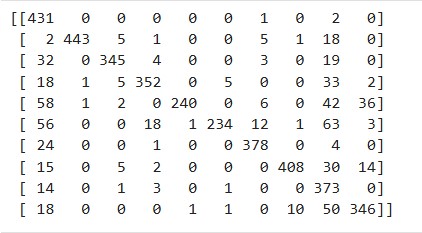
& Confusion Matrix=



# Case35: K=10, and split=90:10

Accuracy= 0.8452380952380952

& Confusion Matrix=



# Case36: K=10, and split=95:5

Accuracy= 0.8346190476190476

& Confusion Matrix=

