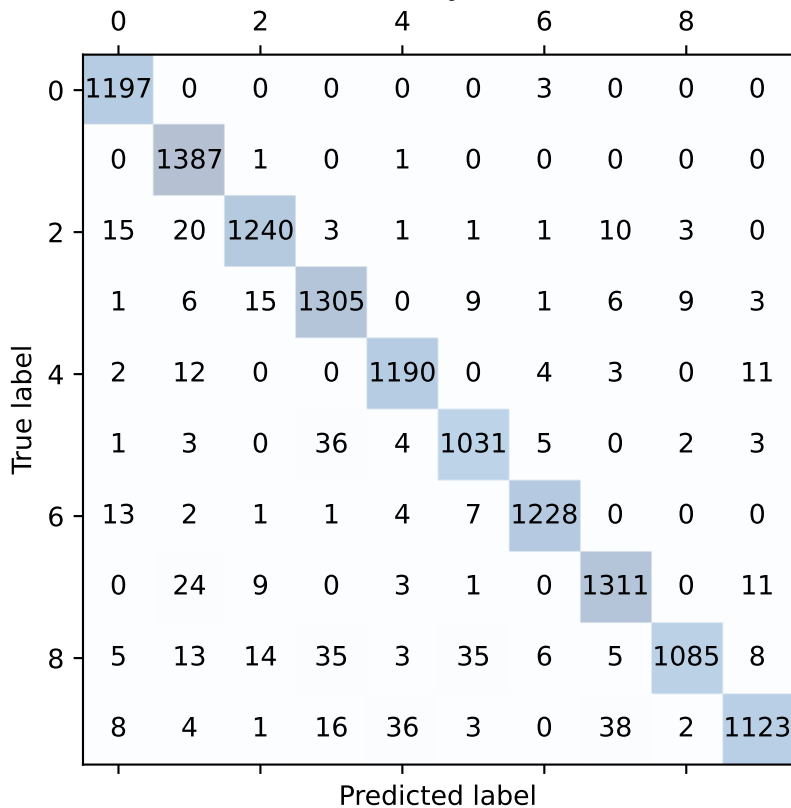


Train-test Split: 0.5, K: 2

Accuracy: 0.96



The performance of the KNN model depends on both the train-test split and the value of K . Generally, a higher proportion of training data can lead to better model performance due to more information being available for the model to learn from. However, this may also lead to overfitting if the test set is too small.

The value of K also plays a crucial role, with too small a K value leading to high variance and too large a K value leading to high bias. The optimal value of K often lies between 5 and 10, balancing bias and variance effectively.