

# Hyperparameter Tuning

↳ Finding the best parameters while training the model

① GridSearchCV

② RandomizedSearchCV

1) GridSearchCV [Grid Search + CROSS VALIDATION] [CV=5]

Logistic Regression



CV ⇒ K fold CV

K=5

TRAIN AND VALIDATION = 5



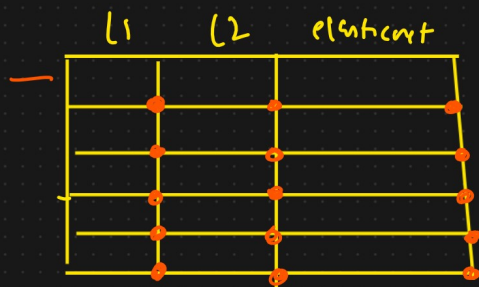
Average Accuracy ⇒

penalty{'l1', 'l2', 'elasticnet', None},  
solver{'lbfgs', 'liblinear', 'newton-cg', 'newton-cholesky', 'sag', 'saga'}

model = LogisticRegression(elasticnet, newton-cg)



model.predict(new-data)



Increase the Model Performance or Accuracy

## Disadvantage

① Time Complexity increases for Training the Model

② RandomizedSearchCV ←

$n\_iter = 10$  +  $CV = 5$

10 different combination + CV=5

## Advantage

- ① Time Complexity Decrease