

Hyperparameter Tuning With Cross Validation

① GridSearchCV

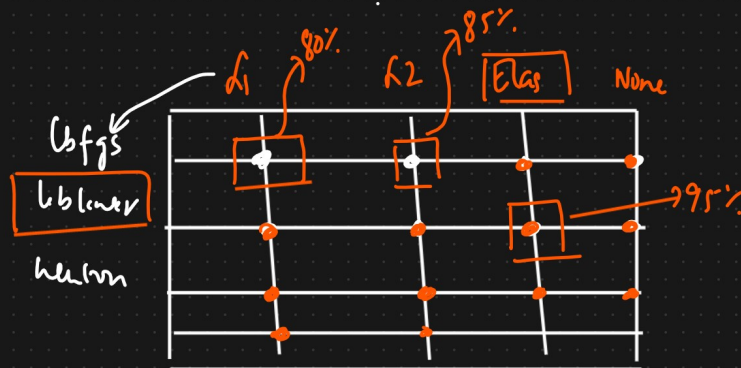
② Randomized Search CV.

↳ Finding the best parameter while training the model.

① GridSearchCV [GridSearch + Cross Validation]

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

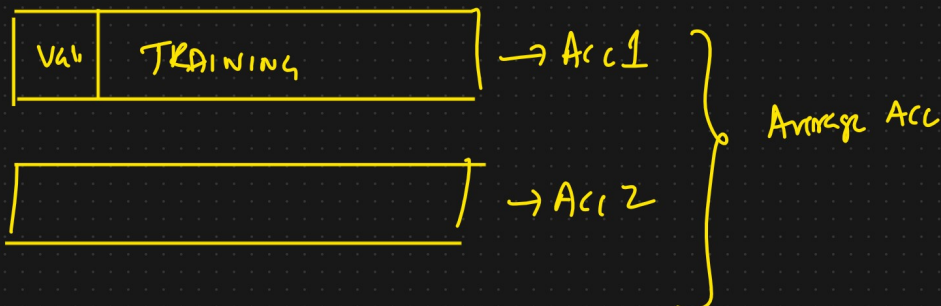
24 combinations



→ CV=5 CV=10

Logistic Regression (l1, solver)

↓
Cross Validation [K fold CV]



Disadvantage

① Time Complexity increases with huge dataset
for Training the Model

② Randomized Search CV

$n_iter = 10$

#

$CV = 5$

10 different combination + $CV = 5 \Rightarrow SD$.

\Downarrow

Select the best parameter

Advantage

① Time Complexity Decreases