

Cross-Validation

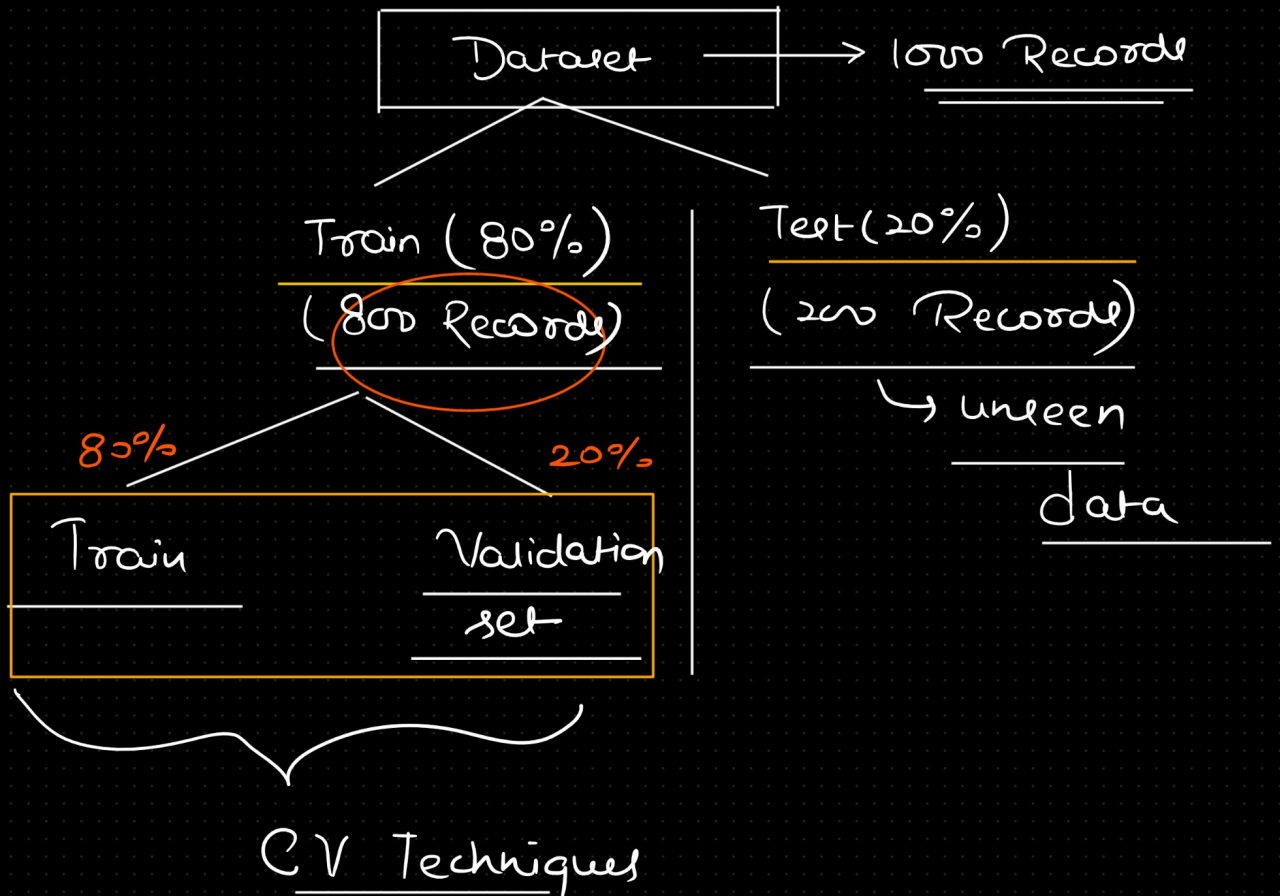
→ Generalization

→ Hyperparameter

Tuning

Reduce Overfitting

Low Variance



$$\frac{1000}{10} = \frac{1000}{10} \leftarrow K = 10$$

$n = 1000$



→ Leave One Out CV

→ Hold Out CV { 20% → Validation set
80% → train set

→ K-fold CV → One of most widely used technique

fold 1 ————— fold 10
 ((
 100 100

→ Stratified K-fold → Equal class proportions
 (unbalanced
classes if
data contains