



Train-Test Ratio

Train-Test Ratio

Original Dataset

Train Data - 70%

Test Data - 30%

Train Data - 80%

Test Data - 20%

Train Data - 99%

Train-Test Ratio

Train Data - 70%

Test Data - 30%

Train Data - 80%

Test Data - 20%

Train Data - 99%

Train data is kept higher to ensure sufficient data is available to make insights and build the prediction system.

Train-Test Ratio

Train Data - 70%

Test Data - 30%

Train Data - 80%

Test Data - 20%

Train Data - 99%

Test data should have sufficient samples to reduce the impact of sample bias.

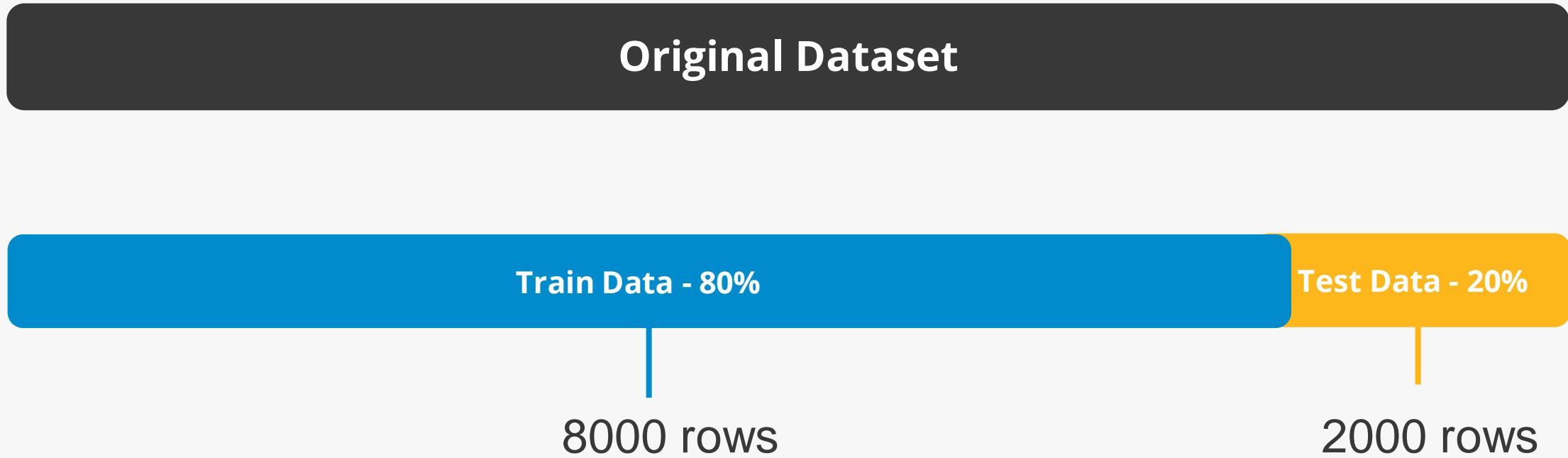
Train-Test Ratio: 500 rows

Original Dataset

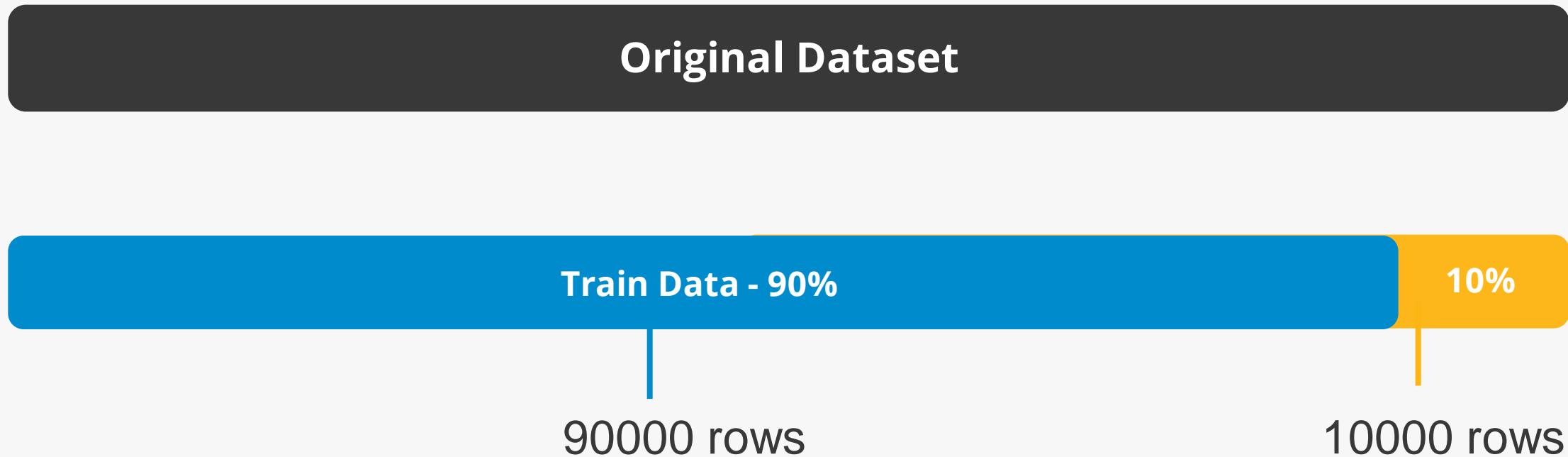
Train Data - 70%

Test Data - 30%

Train-Test Ratio: 10,000 rows



Train-Test Ratio: 100,000 rows



Train-Test Ratio: 100 million rows

Original Dataset

Train Data - 99%

99000000 rows

1000000 rows



⚠ Limitations of Train-Test Split

Limitations of Train-Test Split

- **Difference in Evaluation**

1. Highly dependent on specific random split of data
2. Different splits lead to different evaluation performance



Limitations of Train-Test Split

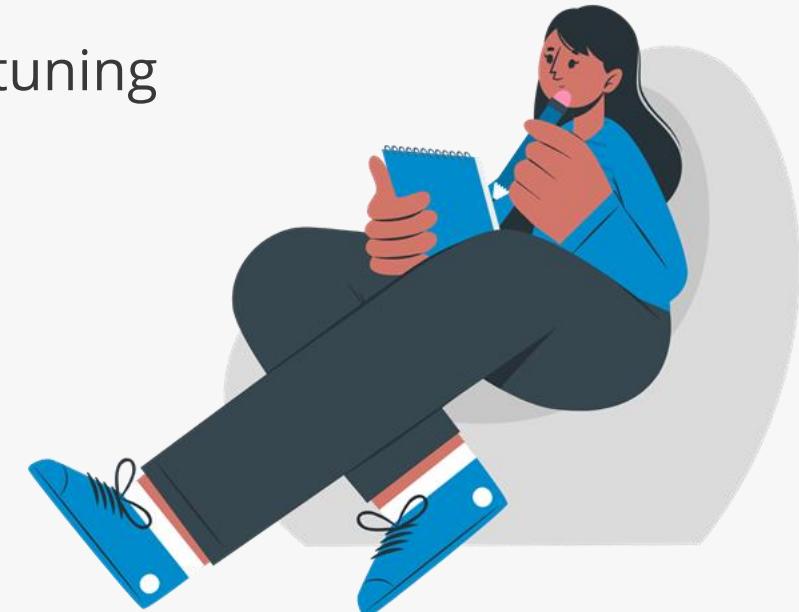
- **Less Efficient Data Utilization**

1. A portion of data is reserved for testing
2. Amount of data available for training
may not be sufficient



Limitations of Train-Test Split

- **Limited Information for Model Selection**
 1. Train-Test Split provides only one evaluation of mode's performance
 2. Might not be reliable especially when it comes to tuning hyperparameters





Cross Validation