به نام او، به یاد او، برای او

Machine Learning

Cross Validation

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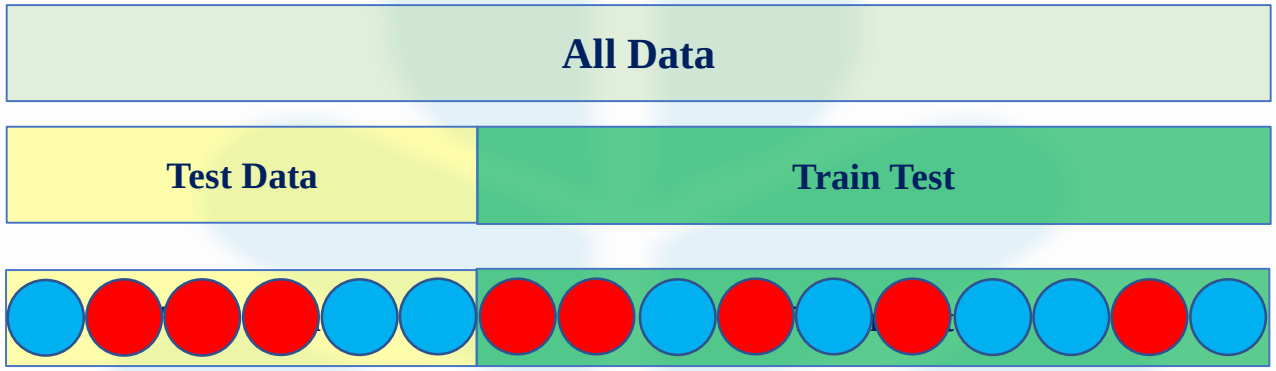
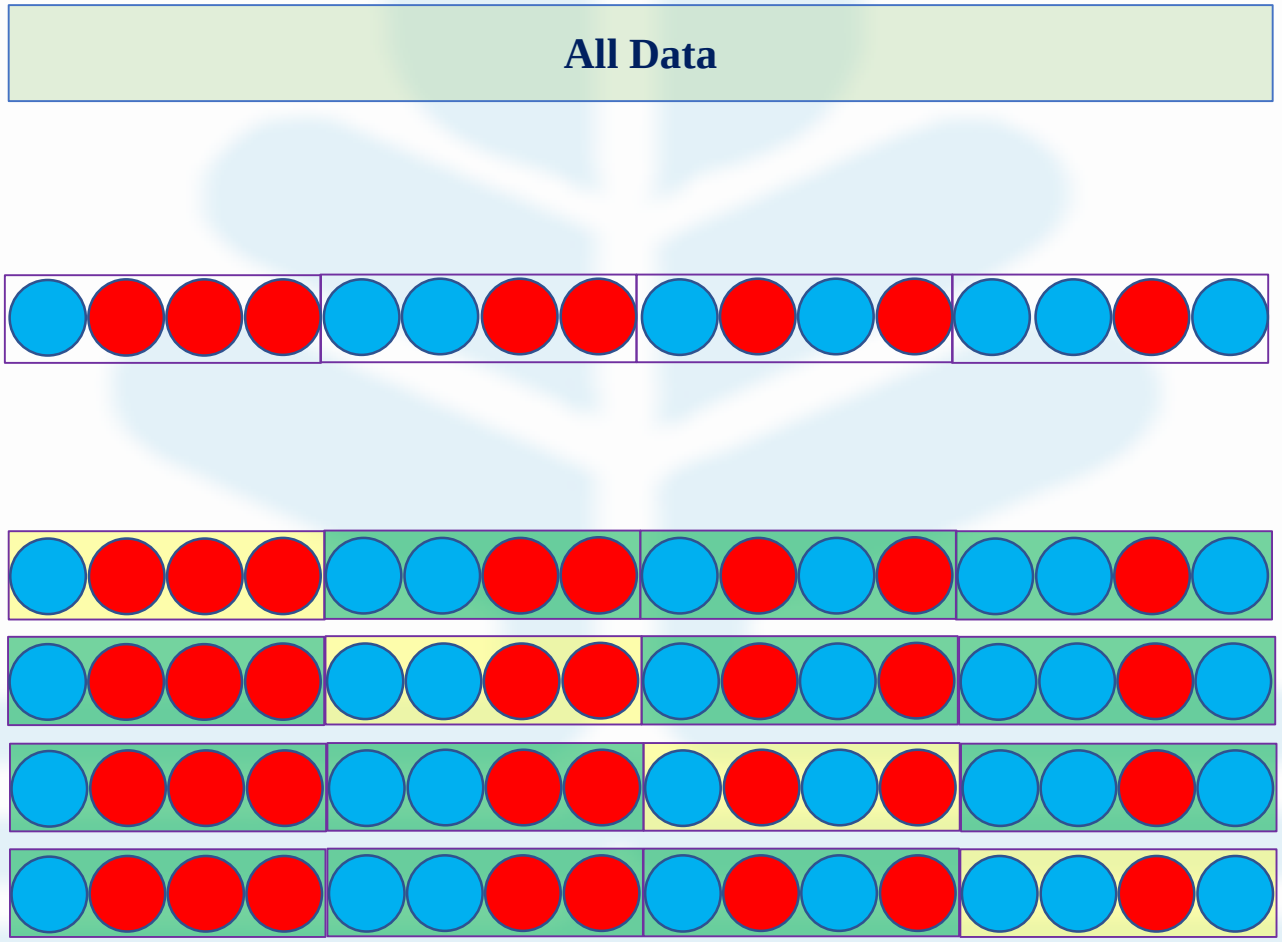
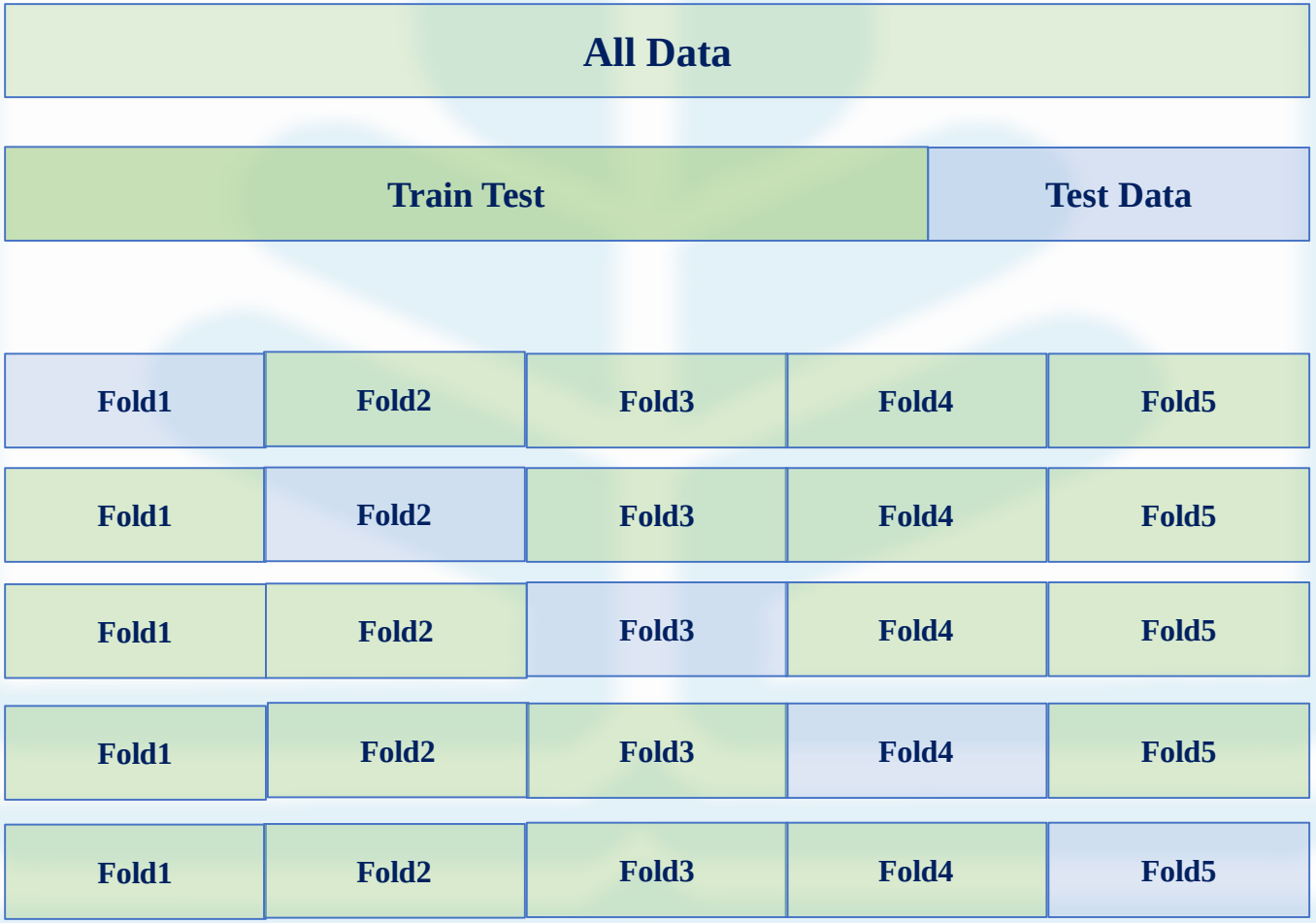
Cross Validation



Cross Validation



Cross Validation



Cross Validation

Step 1. Divide the available data into training, validation and test set

Step 2. Select architecture and training parameters

Step 3. Train the model using the training set

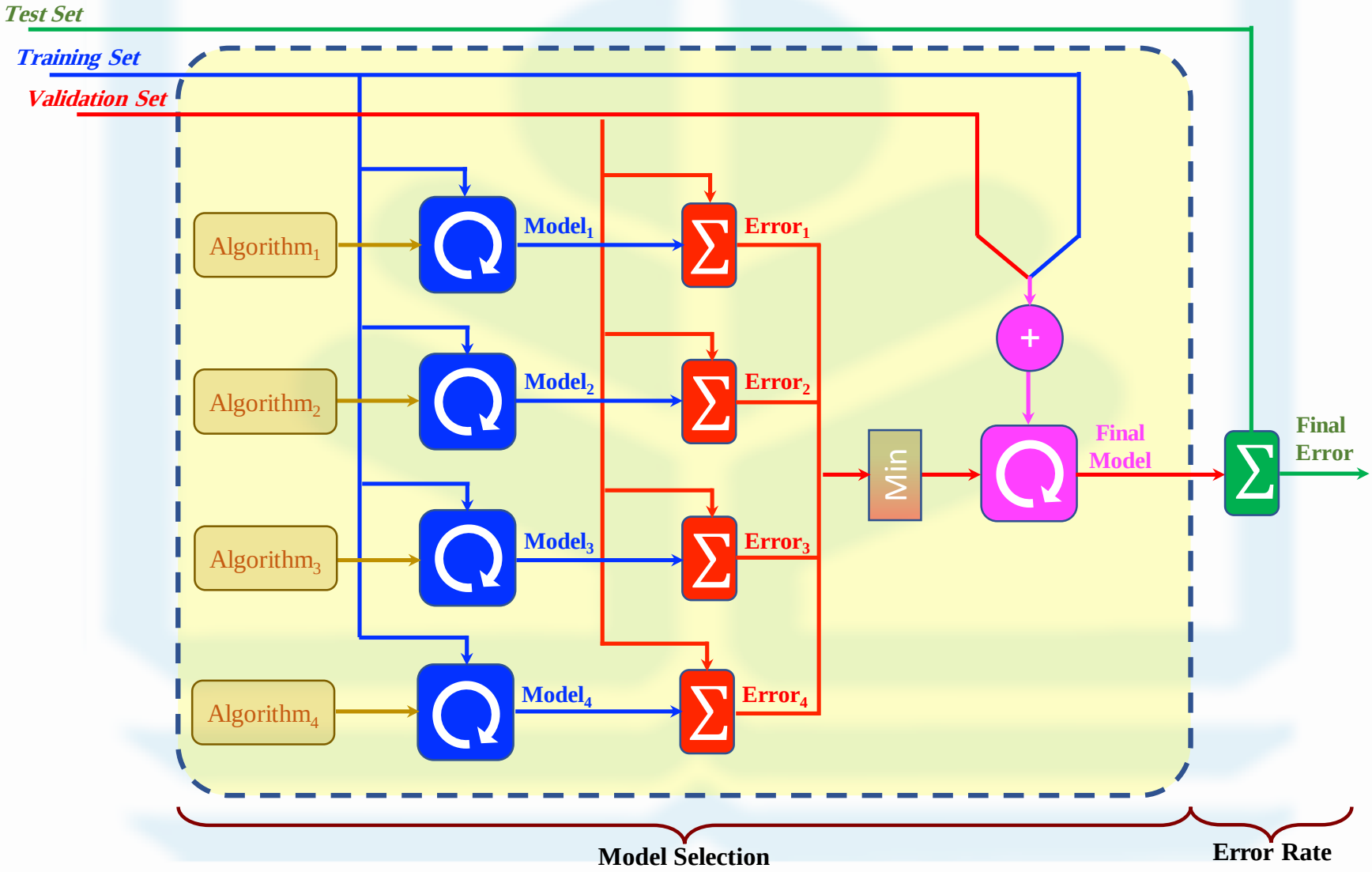
Step 4. Evaluate the model using the validation set

Step 5. Repeat steps 2 through 4 using different architectures and training parameters

Step 6. Select the best model and train it using data from the training and validation sets

Step 7. Assess this final model using the test set

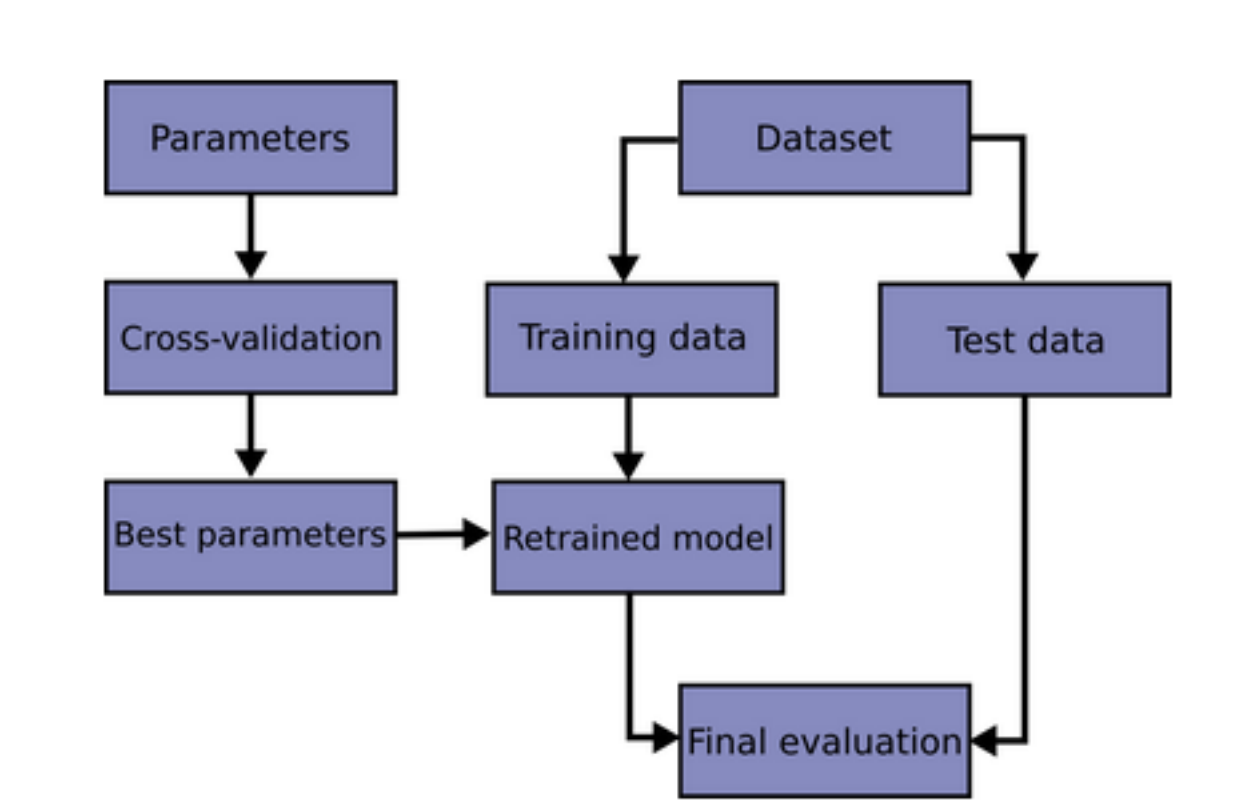
Model Selection



Model Assessment and Selection

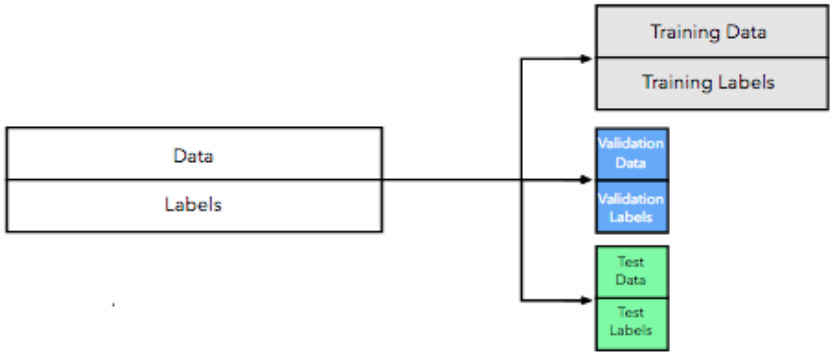
3.1. Cross-validation: evaluating estimator performance

Learning the parameters of a prediction function and testing it on the same data is a methodological mistake: a model that



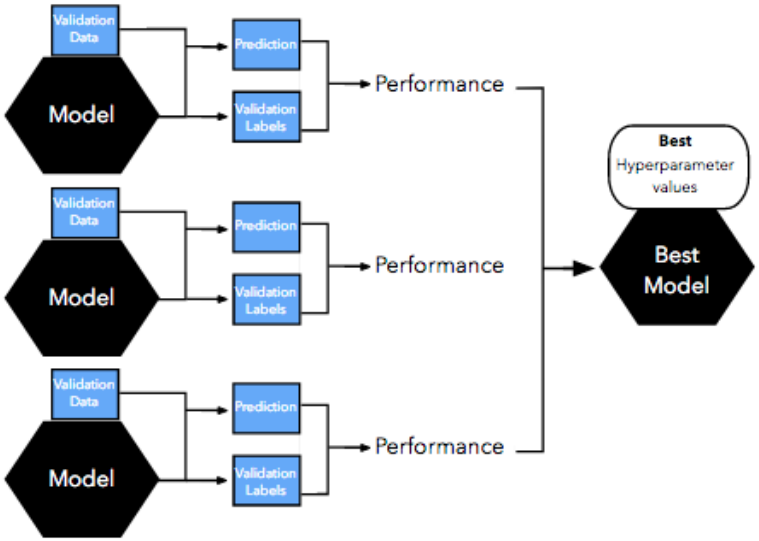
https://machinelearningmastery.com/difference-between-algorithm-and-model-in-machine-learning/

1

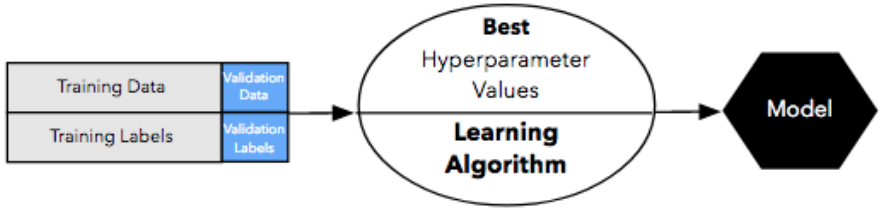

Data
Labels
Training Data
Training Labels
Validation Data
Validation Labels
Test Data
Test Labels


Hyperparameter
Model

3


Validation Data
Model
Prediction
Validation Labels
Performance
Validation Data
Model
Prediction
Validation Labels
Performance
Validation Data
Model
Prediction
Validation Labels
Performance
Best
Hyperparameter values
Best Model

4


Training Data
Validation Data
Training Labels
Validation Labels
Best
Hyperparameter
Values
Learning Algorithm
Model