Introduction to machine learning

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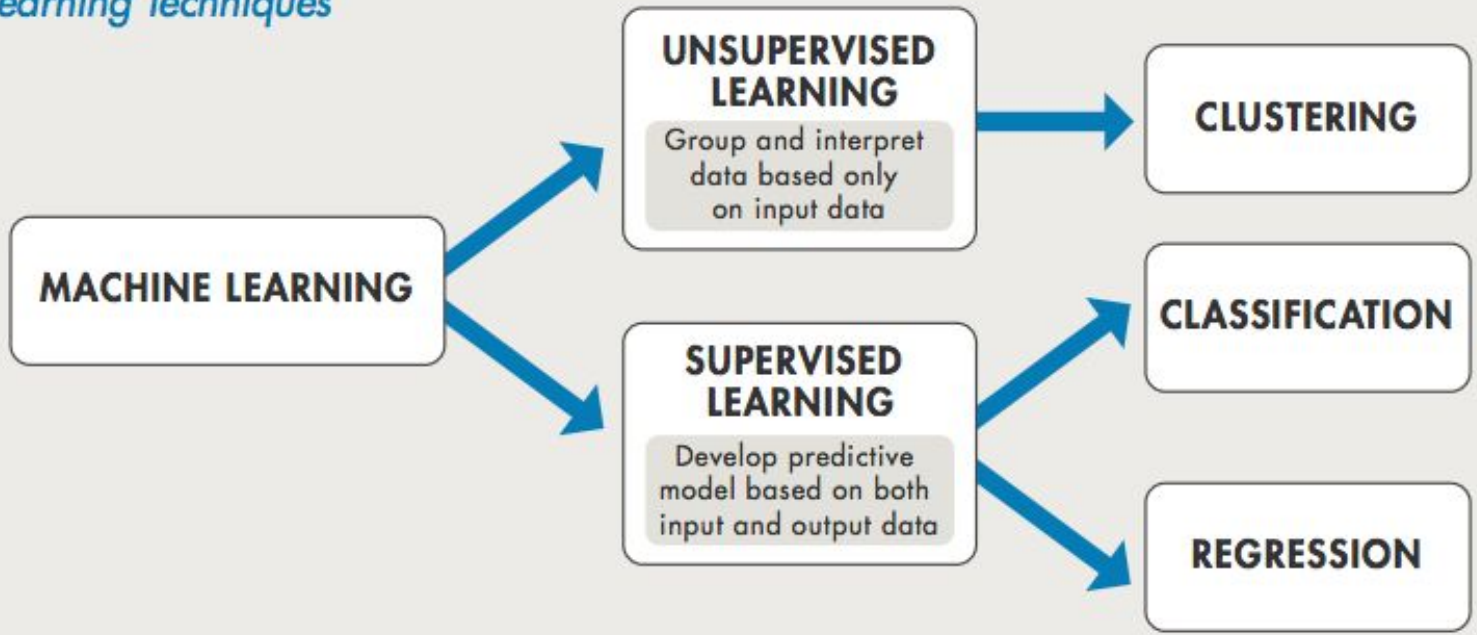
boitatá lab

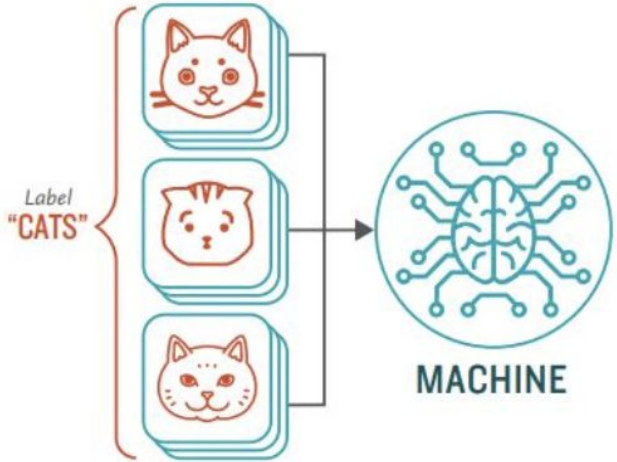
Machine Learning Techniques



How **Supervised** Machine Learning Works

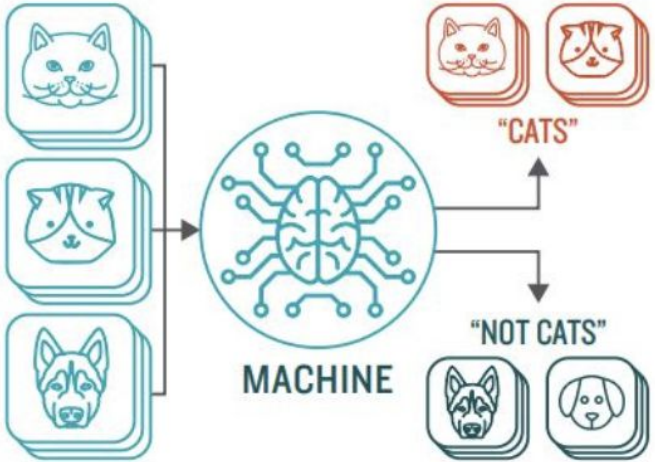
STEP 1

Provide the machine learning algorithm categorized or "labeled" input and output data from to learn

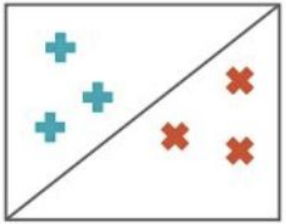


STEP 2

Feed the machine new, unlabeled information to see if it tags new data appropriately. If not, continue refining the algorithm

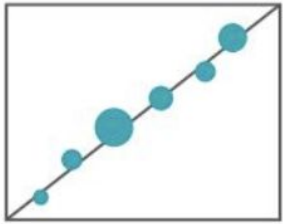


TYPES OF PROBLEMS TO WHICH IT'S SUITED



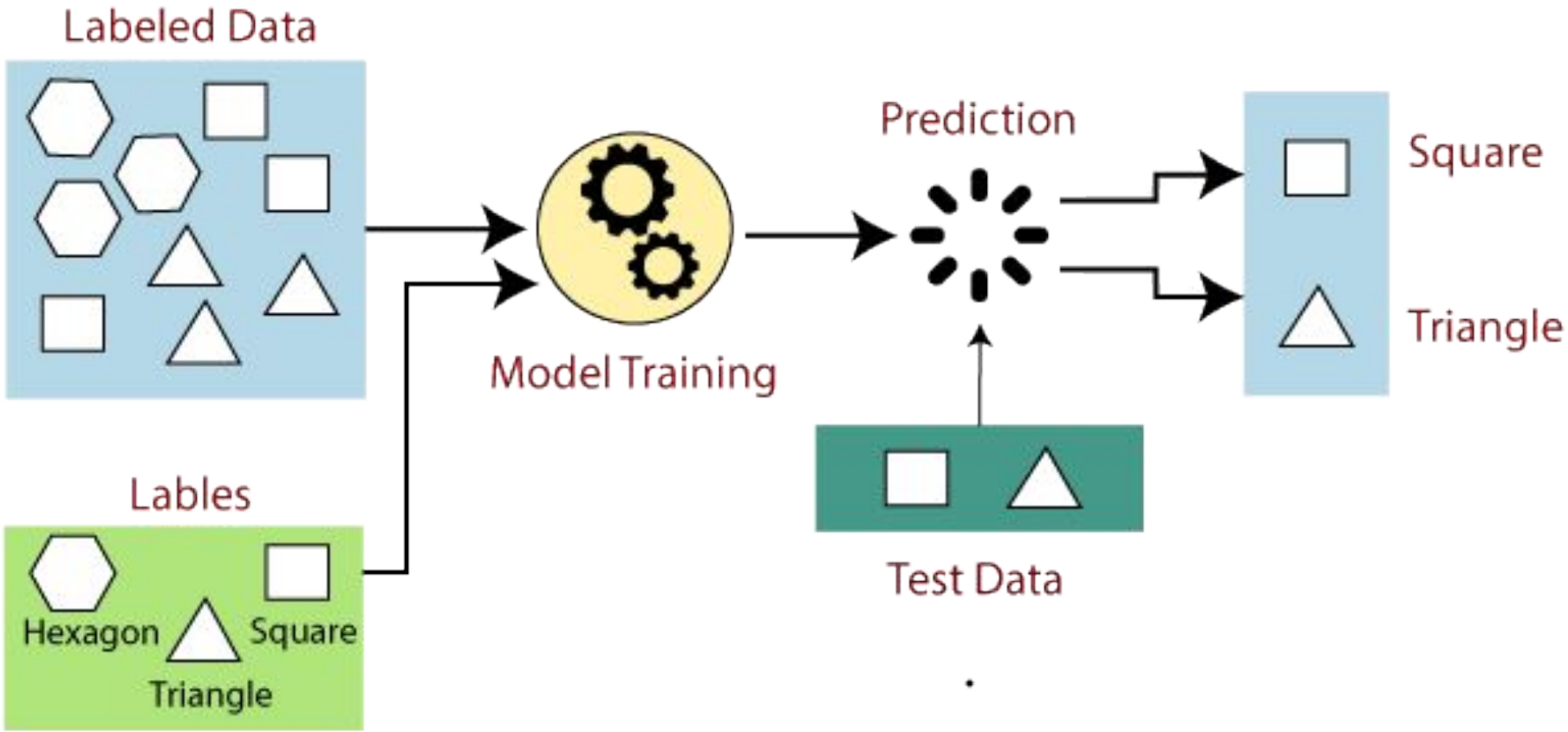
CLASSIFICATION

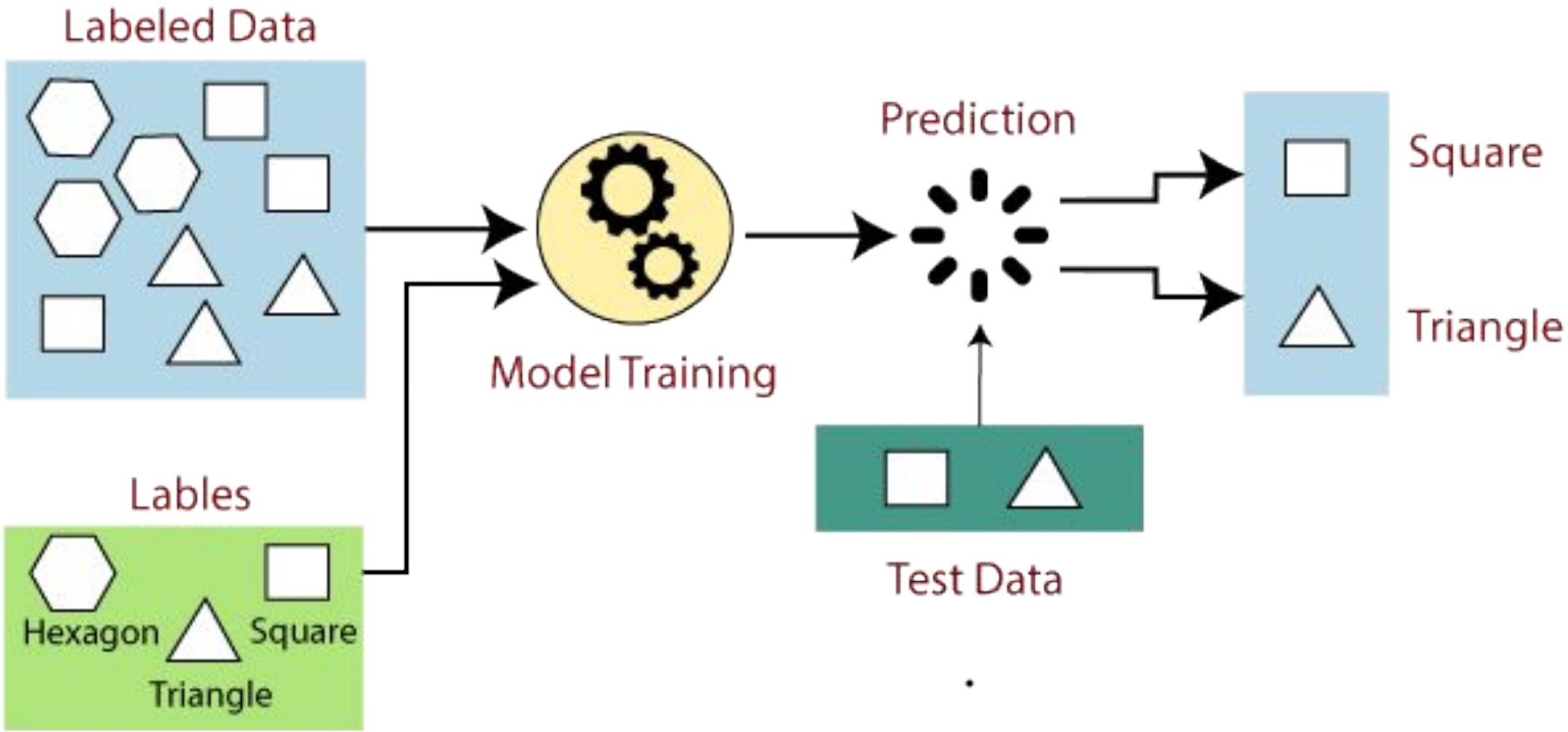
Sorting items into categories



REGRESSION

Identifying real values (dollars, weight, etc.)


Labeled Data
Lables
Hexagon
Square
Triangle
Model Training
Prediction
Test Data
Square
Triangle


Labeled Data
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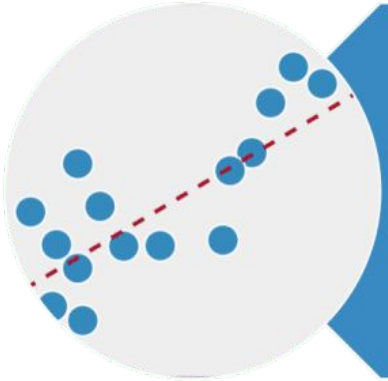
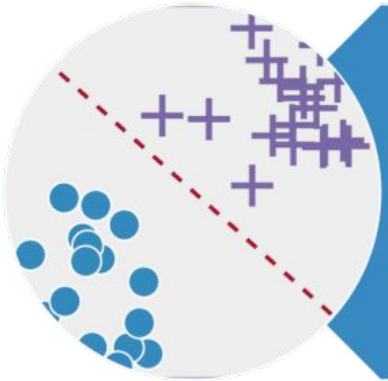
Supervised Learning Algorithms



Regression

- Linear Regression
- Random Forest
- Multi-layer Perceptron
- AdaBoost
- Gradient Boosting
- Convolutional Neural Networks



Classification

- Logistic Regression
- Decision Tree
- KNN
- Support vector machines
- Naive Bayes
- Convolutional Neural Networks

Supervised Learning

1 DataSet Gold

2 Label

3 Cross-Validation

4 Accuracy

Supervised Learning

[datetime,valor, quantidade, valorCancelado,quantidadeCancelada,quantidadeDocumentos,quantidadeValorZero,SAZONALIDADE]

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Thank you !