

Welcome to Our Channel



Artificial Intelligence

AI2YOU Channel

Syllabus

Part 1

Introduction

Part 2

**Supervised Learning
Algorithms**

Part 3

**Unsupervised Learning
Algorithms**

Part 1

NumPy

Pandas

Matplotlib

Seaborn



Part 2

Linear Regression

Gradient Descent(GD)

**Polynomial
Regression**

Logistic Regression

Data Cleaning

**Overfit&Underfit,
Bias&Variance**

Regularization

**K-Nearest
Neighbors(KNN)**

Naive Bayes Classifier

**Support Vector
Machines(SVM)**

Decision Trees(DT)

Random Forest(RF)



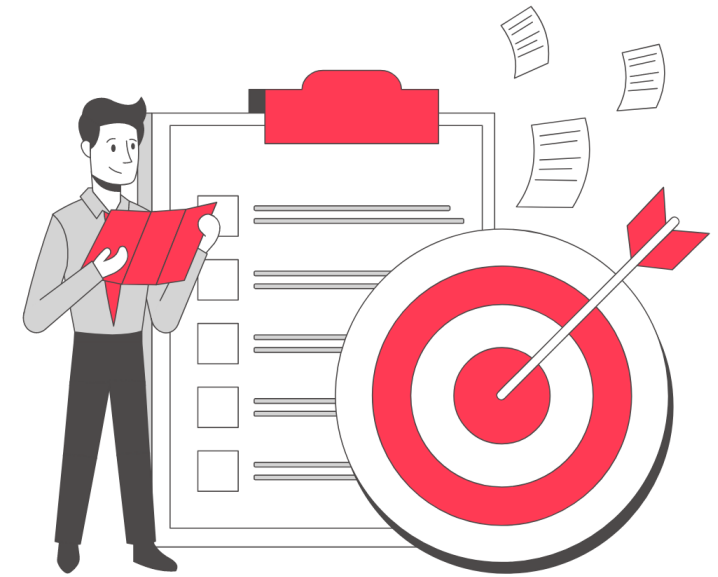
Part 3

K-Means clustering

**Principal Component
Analysis(PCA)**

DBSCAN

Hierarchical Clustering



Frameworks

Data Preprocessing

Pandas

Machine Learning

scikit-learn

Visualization

Matplotlib

seaborn

plotly

NumPy



What is Artificial Intelligence?

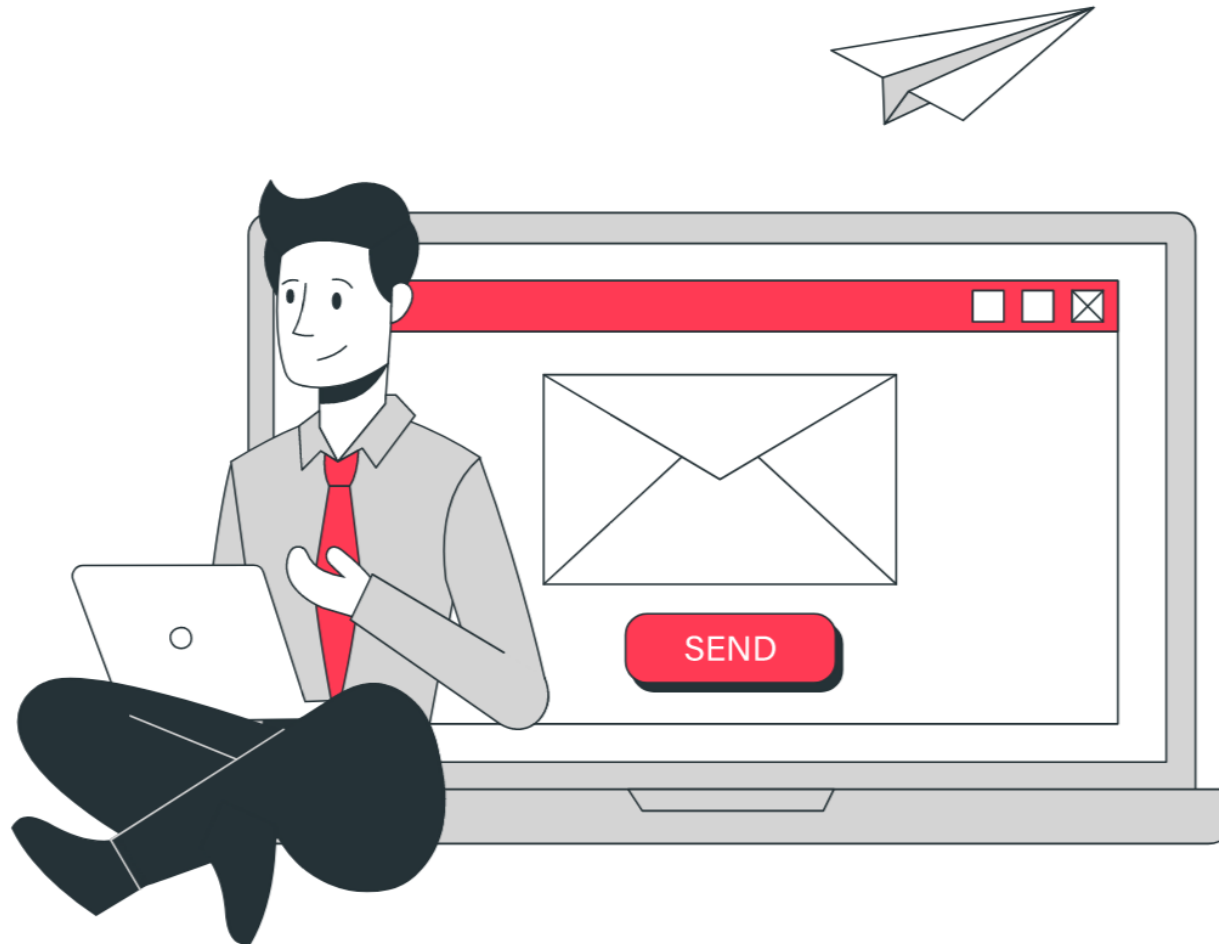
به هر تکنیکی که کامپیوترها یا ماشین‌ها را قادر می‌سازد تا مانند انسان‌ها رفتار کنند،
هوش مصنوعی می‌گویند.

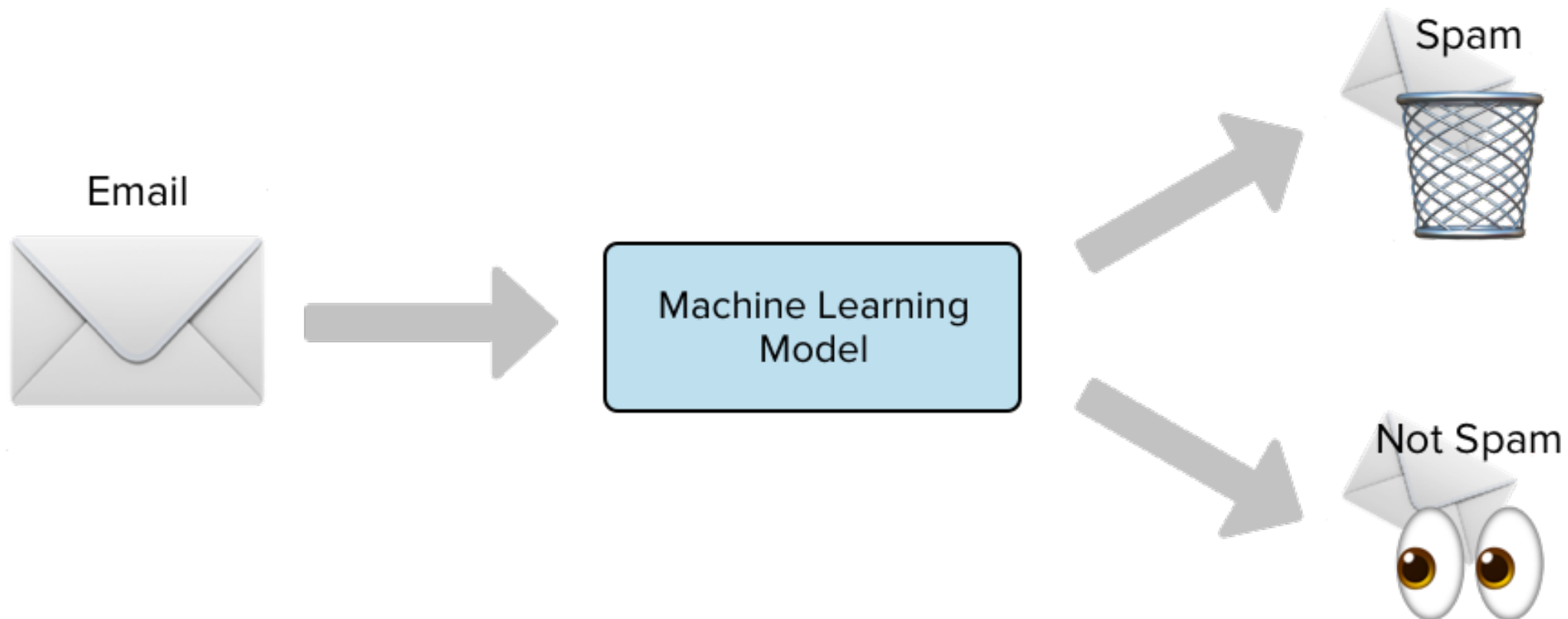


What is Machine Learning?

یادگیری ماشین زیر مجموعه هوش مصنوعی است که به کامپیوترها یا ماشین‌ها این قابلیت را می‌دهد تا بدون برنامه ریزی مستقیم یاد بگیرند.

Machine Learning Examples





Machine Learning Examples



Data types

Structured Data

Time Series Data

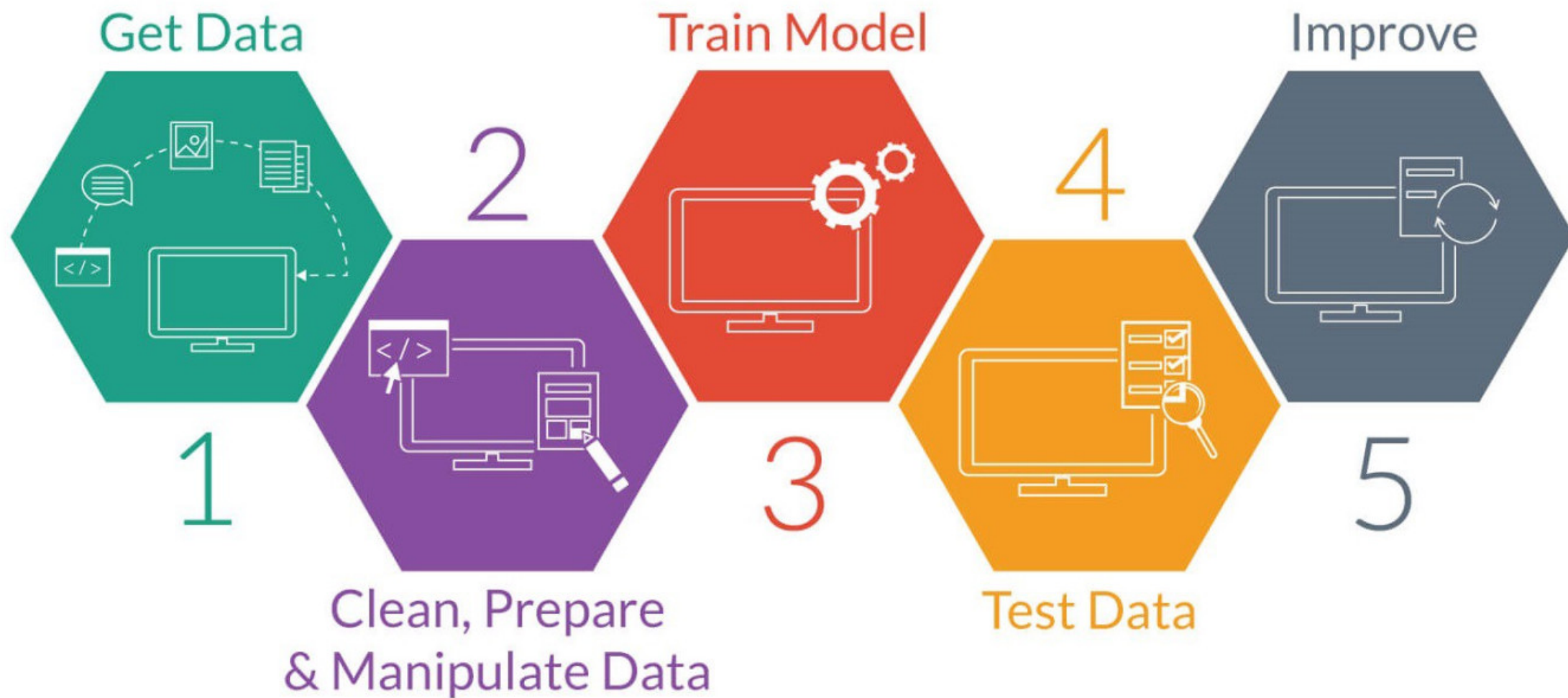
Tabular Data

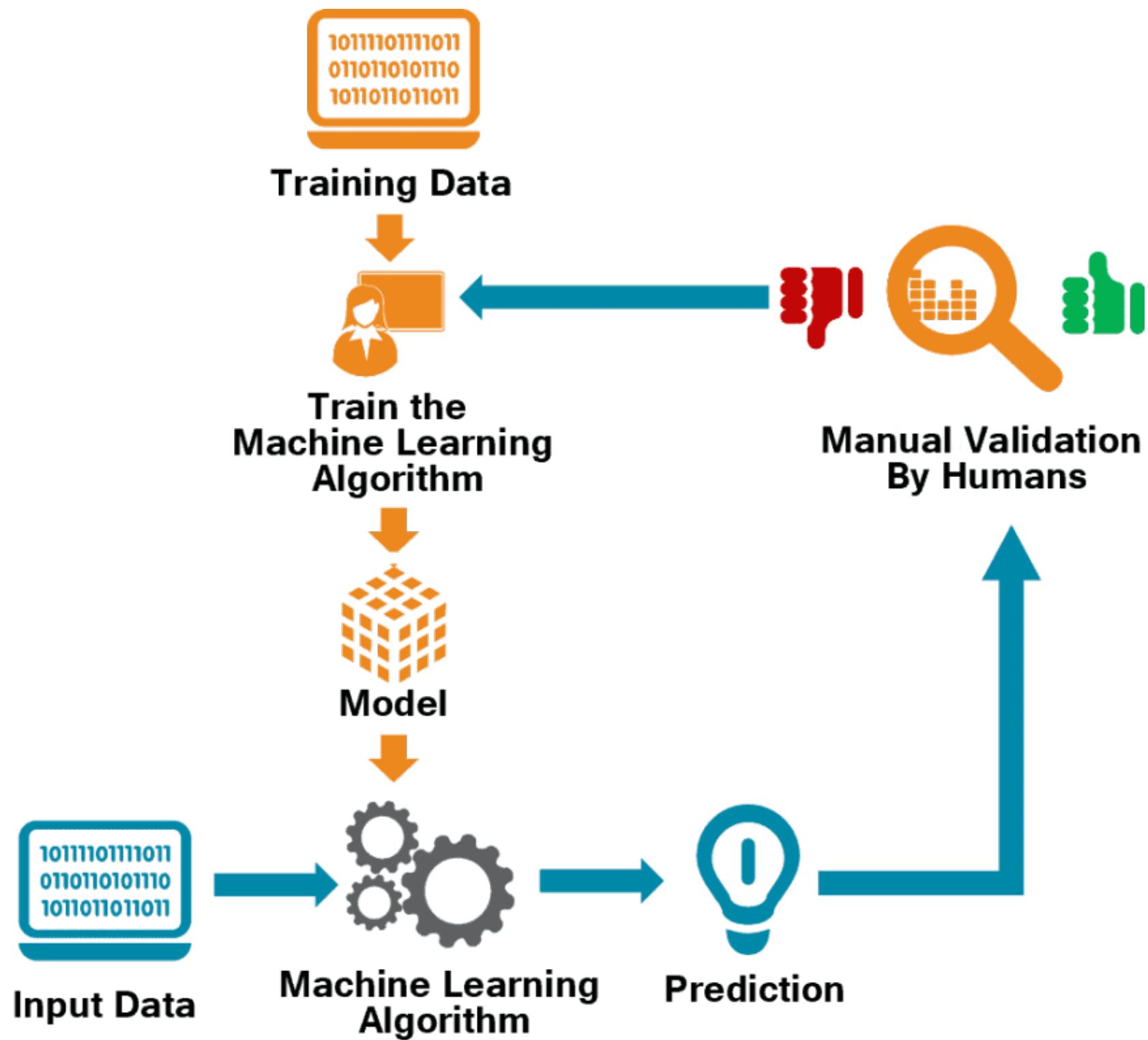
Unstructured Data

Image

Text

Voice





Dataset

Train

Test

Size(m ²)	#bedrooms	#floors	Age	Price
2104	5	1	45	460
1416	3	2	40	232
1532	3	2	30	315
852	2	1	36	178
952	2	1	65	271
1244	3	1	64	300
1947	3	2	17	509
1725	3	2	42	394
1959	3	2	15	540
1314	2	1	14	415

validation



The logo is a large red circle containing a white line-art illustration of a person wearing a graduation cap and headphones, sitting at a desk with a play button icon. Below the illustration, the text "AI2YOU" is written in a large, bold, white sans-serif font, and "Virtual Learning" is written in a smaller, white sans-serif font below it.

The End

AI2YOU

Virtual Learning