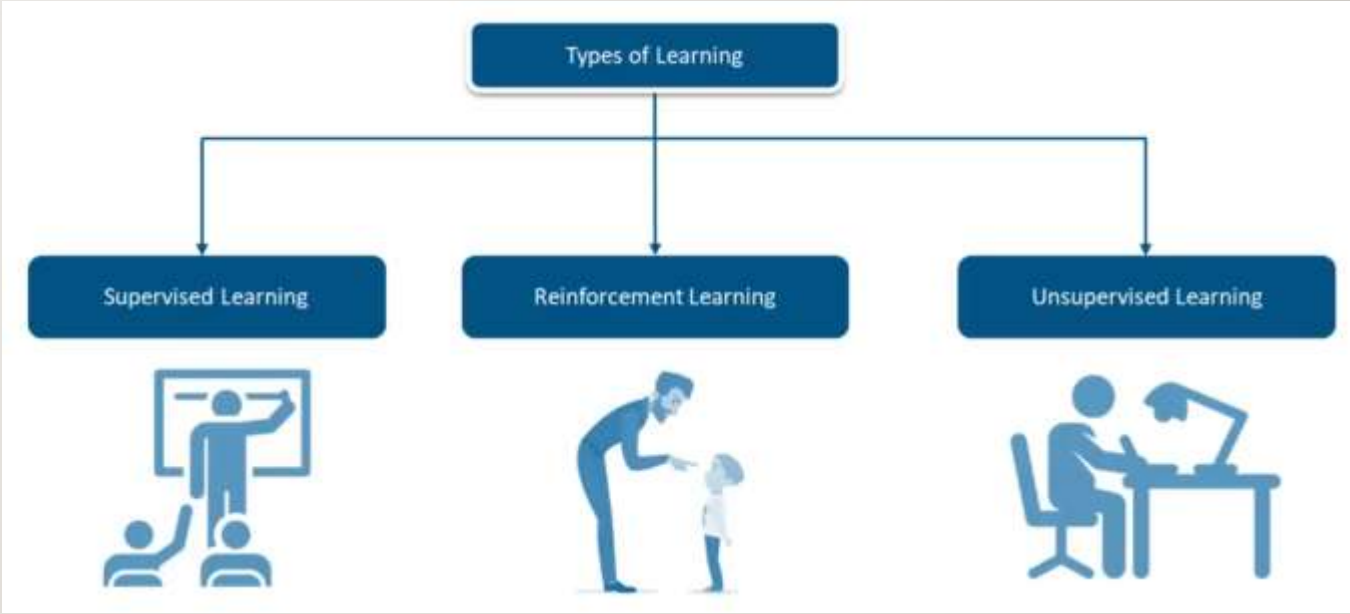
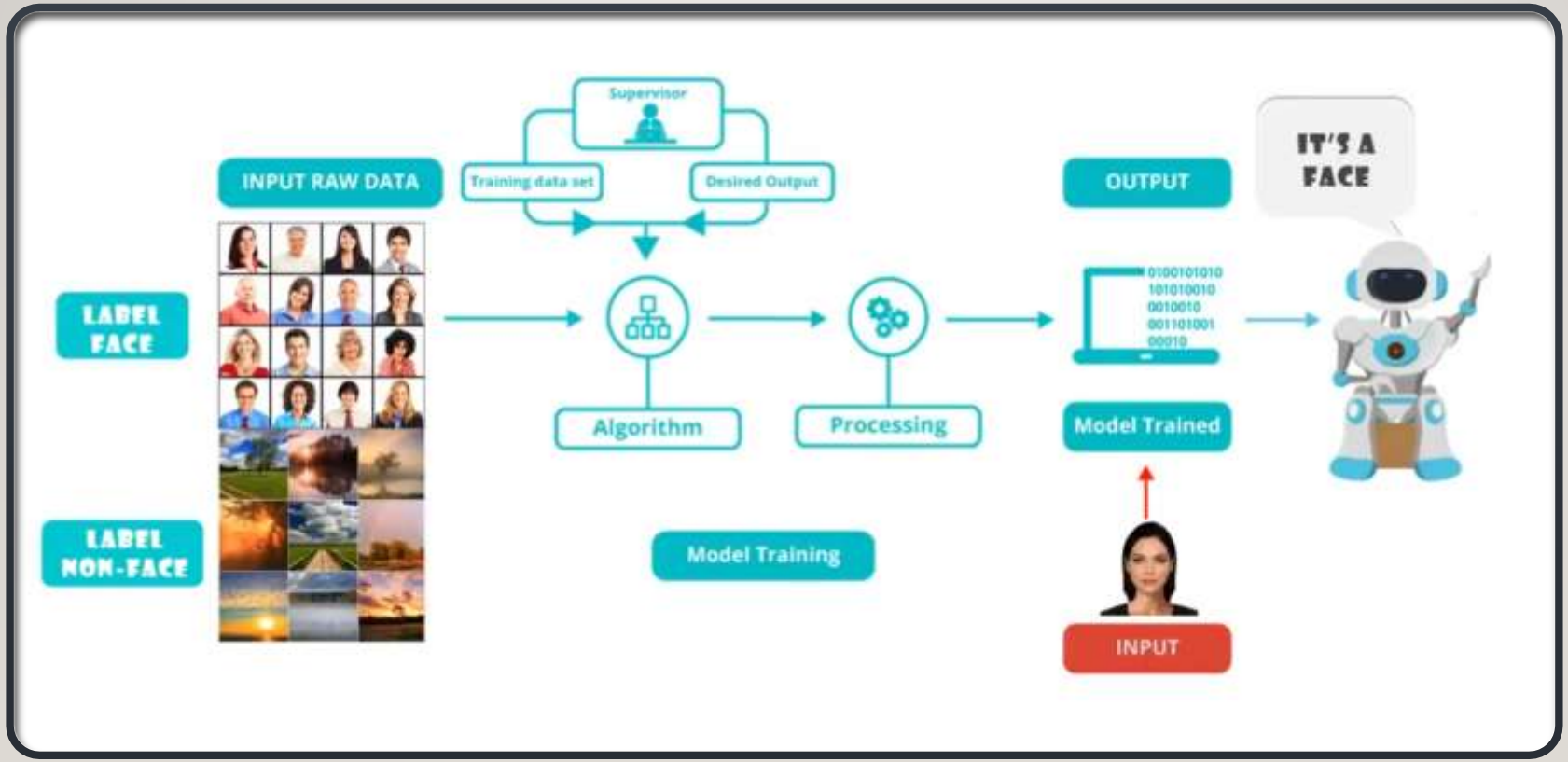
TYPES OF MACHINE LEARNING

TYPES OF MACHINE LEANING ALGORITHMS

- **Supervised machine learning** algorithms
- **Unsupervised machine learning** algorithms
- **Reinforcement machine learning** algorithms



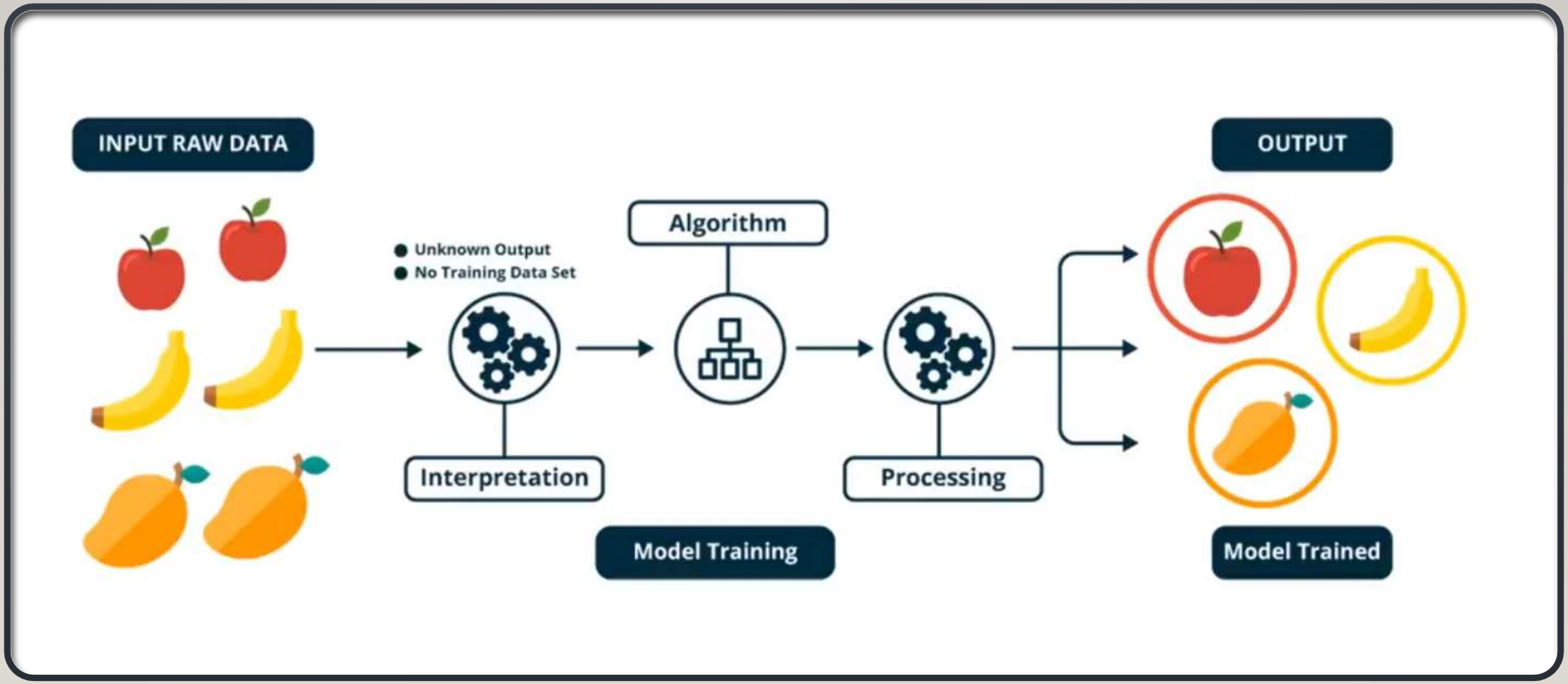
SUPERVISED LEARNING(1/2)



SUPERVISED LEARNING(2/2)

- **With the knowledge of a previous set of labelled input and output data, the machine develops a correlation which can predict the outputs for such input values in the near future**
- **Applications**:
  - face and speech recognition
  - Products/movie recommendations
  - sales forecasting
- **Examples:**
  - Google Assistant/Cortana can identify your voice once you trained its voice model
  - Facebook gives you friend suggestions based on the pics you were tagged in
  - DEEPFACE ALGORITHM: Facebooks' image recognition algorithm for photo tagging

UNSUPERVISED LEARNING(1/2)



UNSUPERVISED LEARNING)2/2)

- **With the available set of unlabelled and unstructured data, the machine identifies and infers a hidden pattern of the data**
- Ex:
  - Detecting fraudulent bank transactions by grouping the transaction sequential data
  - Amazon's personal product promotion based on recent purchase history

REINFORCED LEARNING

- Allows machines and software agents to automatically determine the ideal behavior within a specific context in order to maximize its performance.
- Ex:
  - PC games like Creatures & Halo series increase the difficulty levels for any specific player once it learns the player stats
  - HALO SERIES also uses the machine learning for prototype testing to increase the user experience

THANK YOU