

# Intro to AI



@Ahmedtronic

# Agenda:

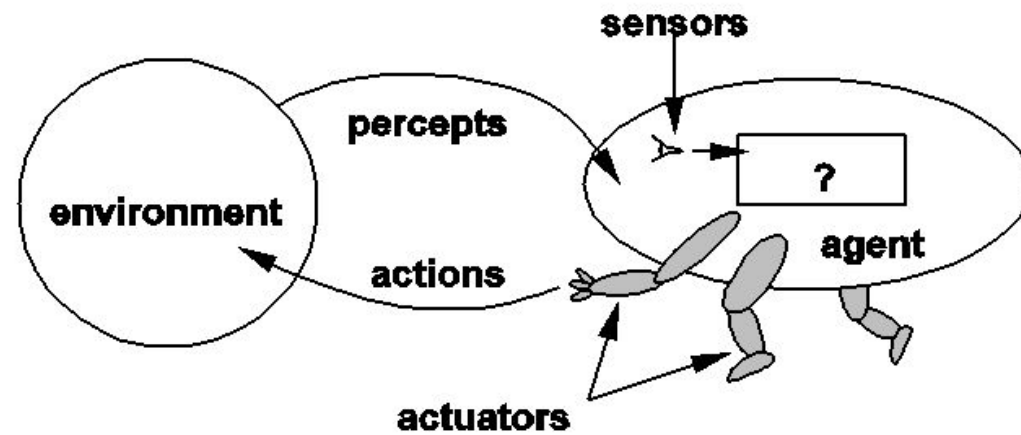
- Examples of AI
- How Exactly AI works?
- Making an AI agent
- Types of machine learning
- Classification Algorithms
- Selecting best Algorithm
- Phases of implementing AI model
- Python start
- Google Cloud Platform
- Conclusion

**Real Examples of AI... know  
before you enter**



**What is AI, How it  
works? ....**

# Agents



- Agent – perceives the environment through sensors and acts on it through actuators
- Percept – agent's perceptual input (the basis for its actions)
- Percept Sequence – complete history of what has been perceived.

**Making an AI agent, define your  
problem**

# Types of machine learning...

```
graph LR; A[Inputs, labels] --> B((Model)); B --> C[Prediction]
```

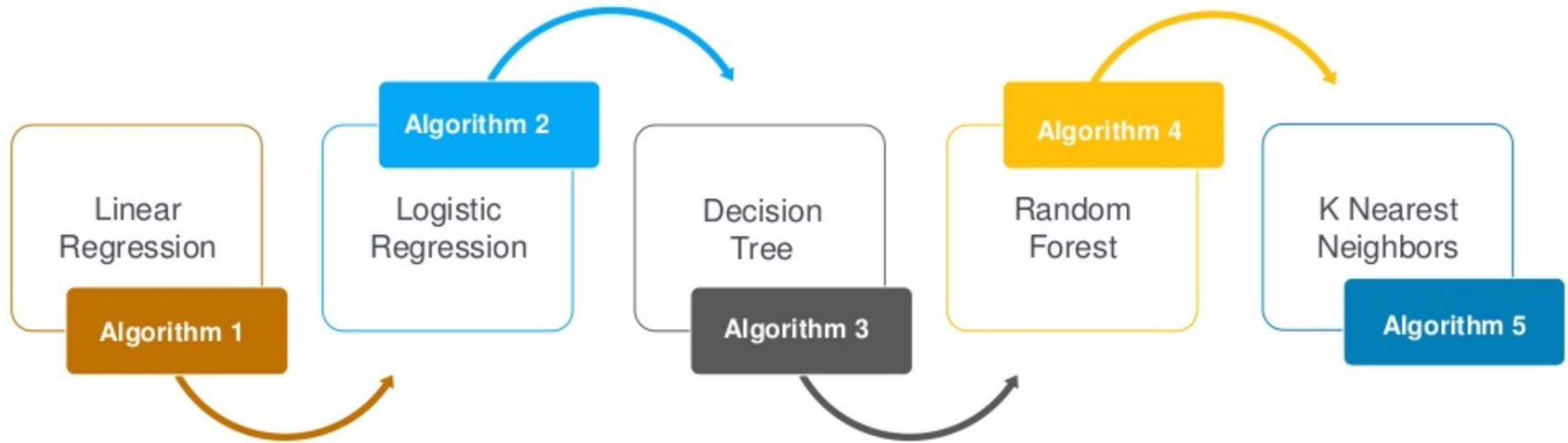
Inputs, labels

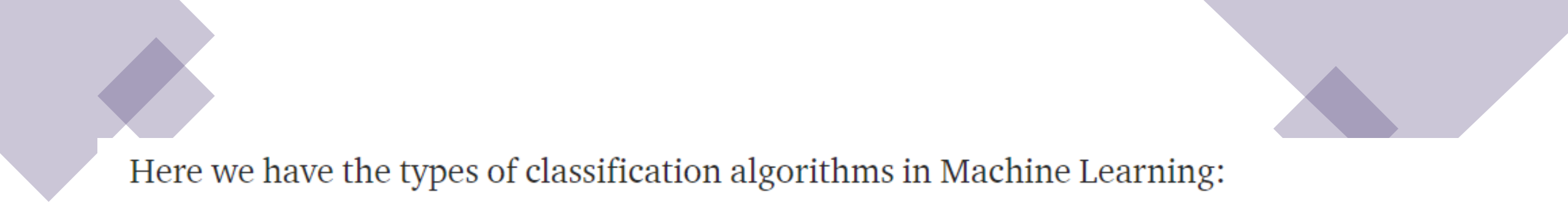
Model

Prediction




# Classification vs. Regression





Here we have the types of classification algorithms in Machine Learning:

1. Linear Classifiers: Logistic Regression, Naive Bayes Classifier
  2. Nearest Neighbor
  3. Support Vector Machines
  4. Decision Trees
  5. Boosted Trees
  6. Random Forest
  7. Neural Networks
- 

# How do we get from **input** to **prediction**?

inputs ➤ model ➤ prediction

# Google Dataset Search Beta

**daily weather**



Dataset Repositories

**Let's code...**

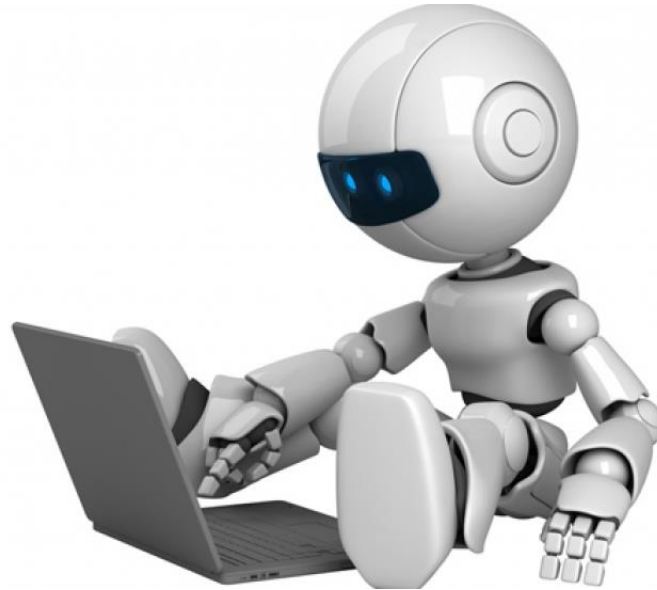


# What is Machine Learning ?

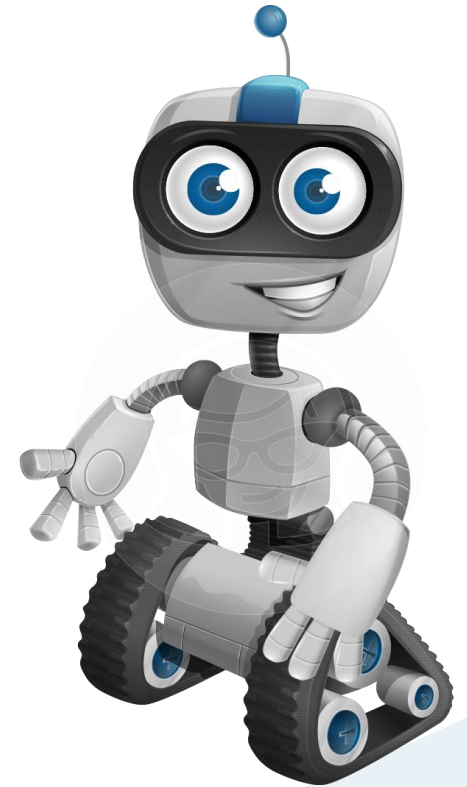
Learn from experience



Learn from ~~experience~~  
**data**



Follow Instructions





# Types of ML:

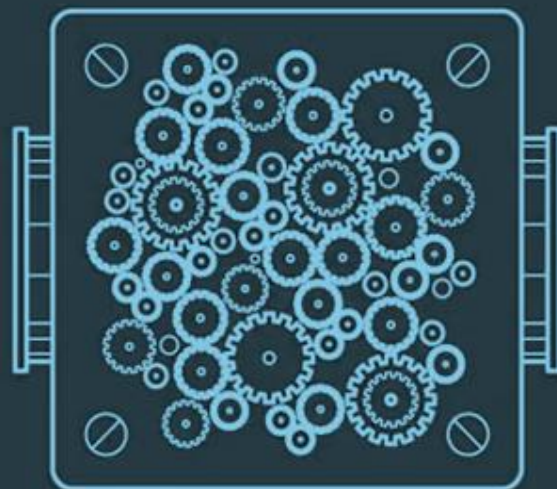
Supervised

Unsupervised

Reinforcement

# Deep Learning

# Performance measurement



# Data



Raw Facts



Small pieces of information



Can be a number, a word, a text or even measurements and observations

# For an Organization



Time

Money

Skilled people











“Cat”









# Getting Started...

# What else ?

**Basic syntax of python**

**Probability**

**Statistics**

**Number Theory**



# Looking for recommendations?

Intro to AI (Udacity)

Machine Learning ( Coursera )

Machine learning from A to Z

Machine learning nanodegree ( Udacity )

# Conclusion:

- Artificial Intelligence... what, when, where, why and how?
- Machines are becoming more helpful doing complex tasks
- Machines learn from data to be more accurate
- Data preparation is one of the most important things in the training process
- Neural networks has helped solve more complex task that simple ml algorithms couldn't
- You don't need deep knowledge in math or coding to start, only basic python syntax.





---

**Thankyou**