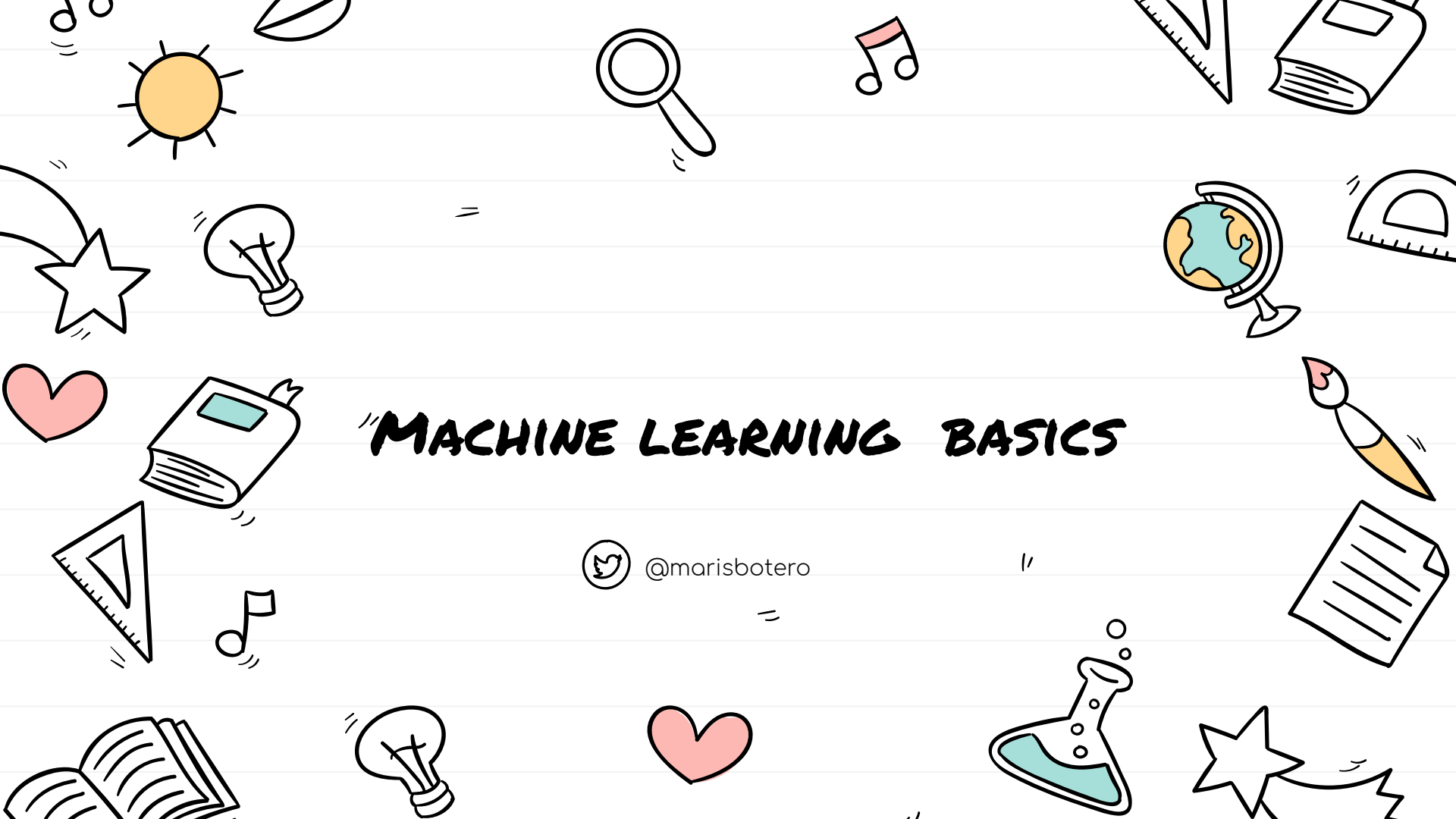
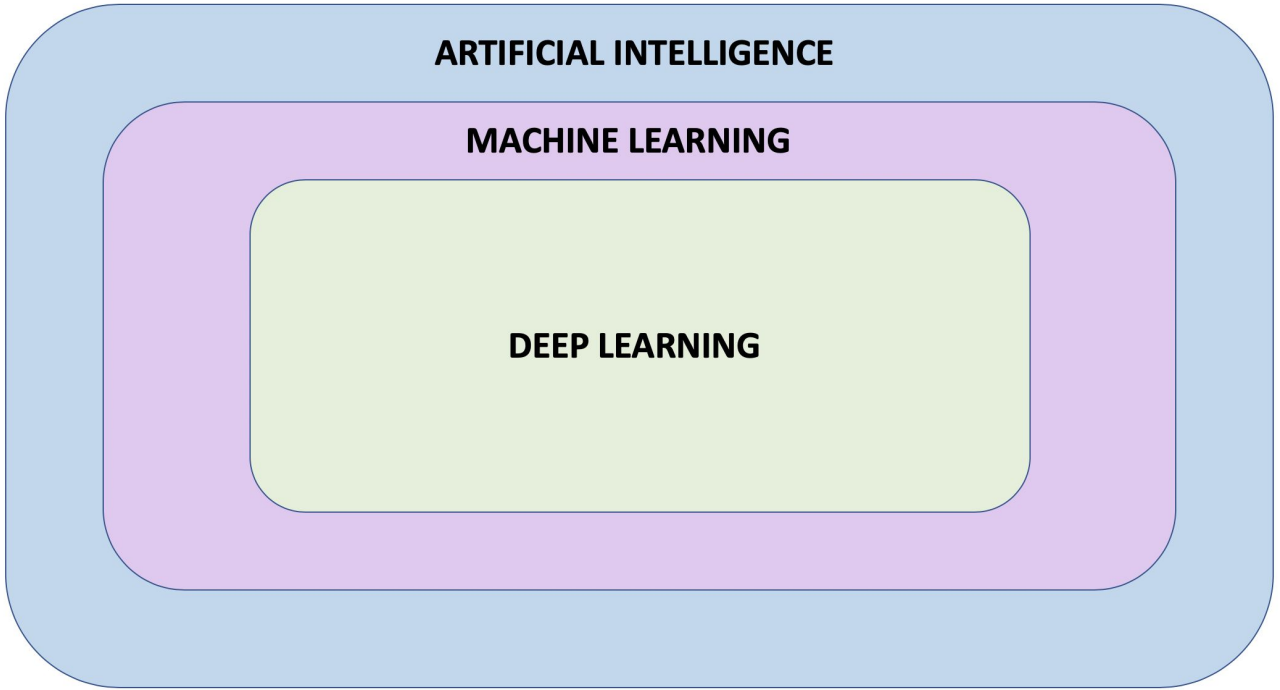

Machine learning basics
@marisbotero


ARTIFICIAL INTELLIGENCE
MACHINE LEARNING
DEEP LEARNING

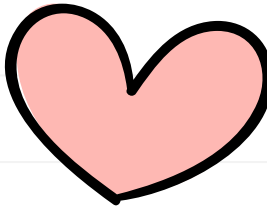
INTRODUCTION

Input: 0, 8, 15, 22

Output: 32, 46.4, 59, 71.6

Input: 0, 8, 15, 22, 38

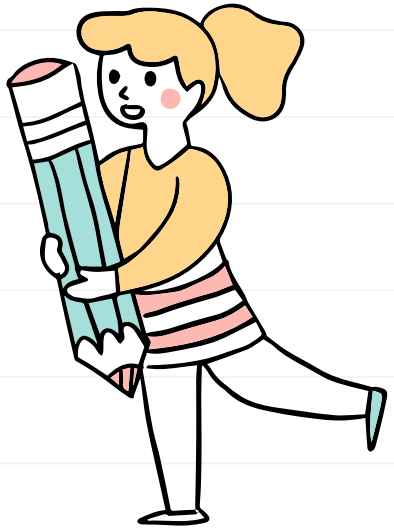
Output: 32, 46.4, 59, 71.6, ?

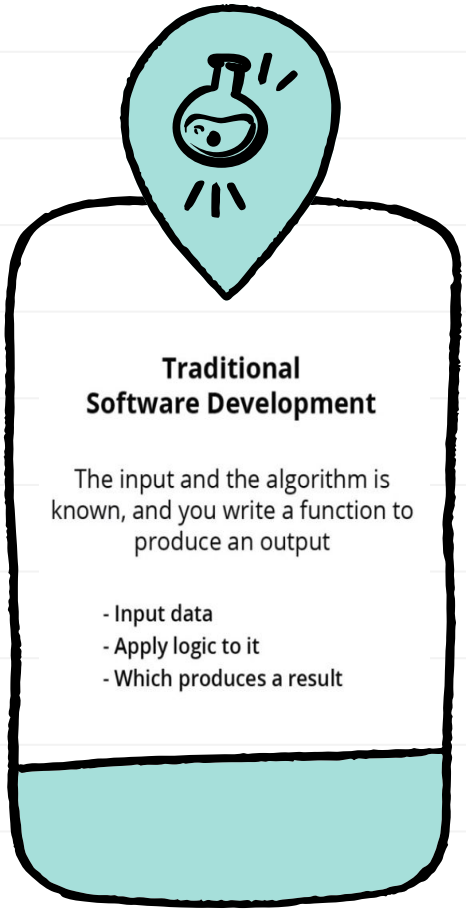


WHAT IS THIS TOPIC ABOUT?

$$F = C * 1.8 + 32$$

F = *Fahrenheit*
C = *Celsius*

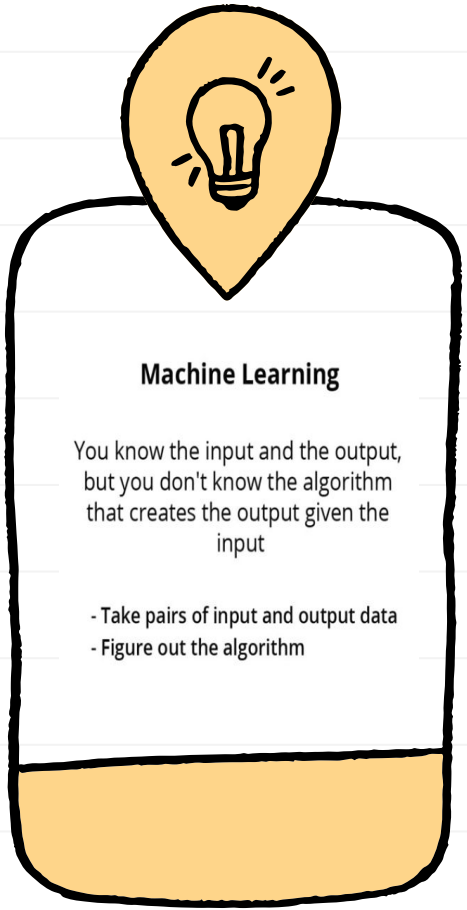




Traditional Software Development

The input and the algorithm is known, and you write a function to produce an output

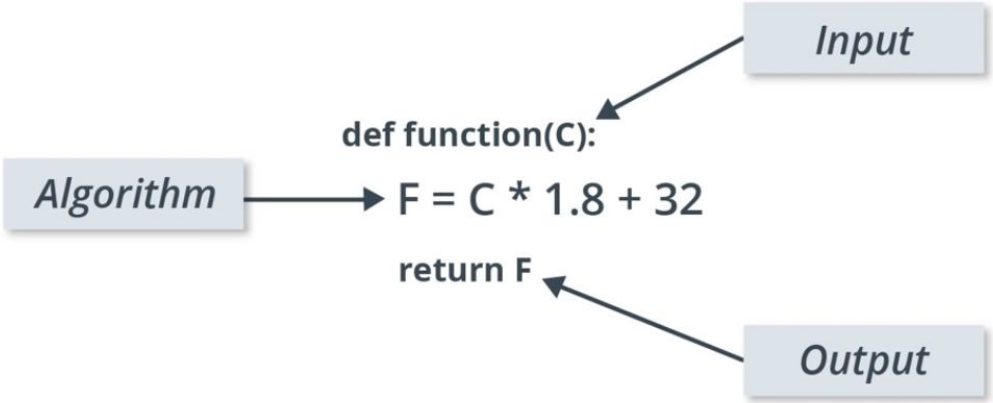
- Input data
- Apply logic to it
- Which produces a result

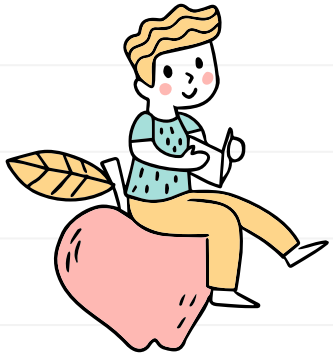


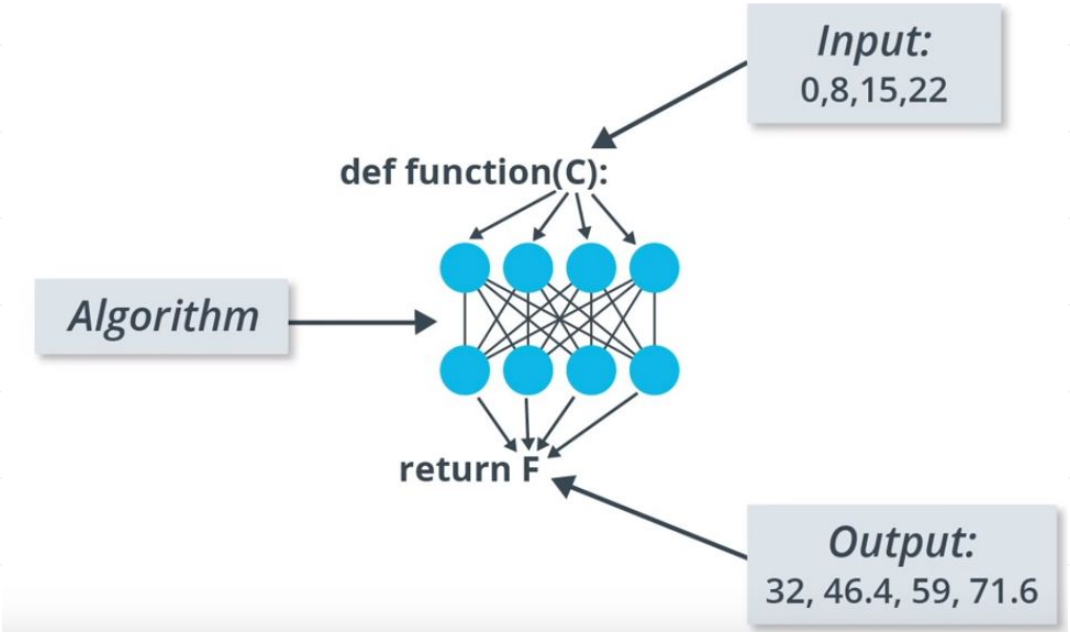
Machine Learning

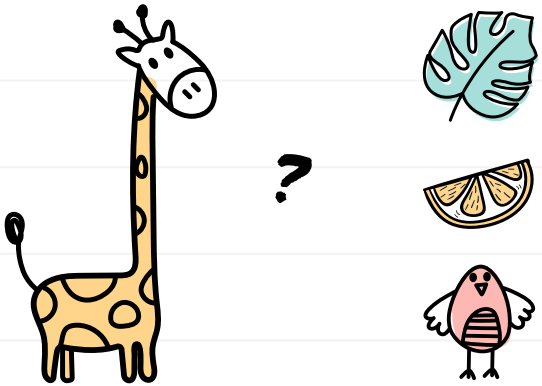
You know the input and the output, but you don't know the algorithm that creates the output given the input

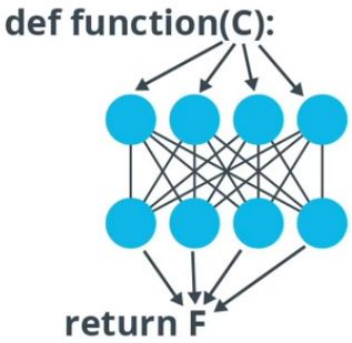
- Take pairs of input and output data
- Figure out the algorithm


Input
def function(C):
Algorithm
F = C * 1.8 + 32
return F
Output

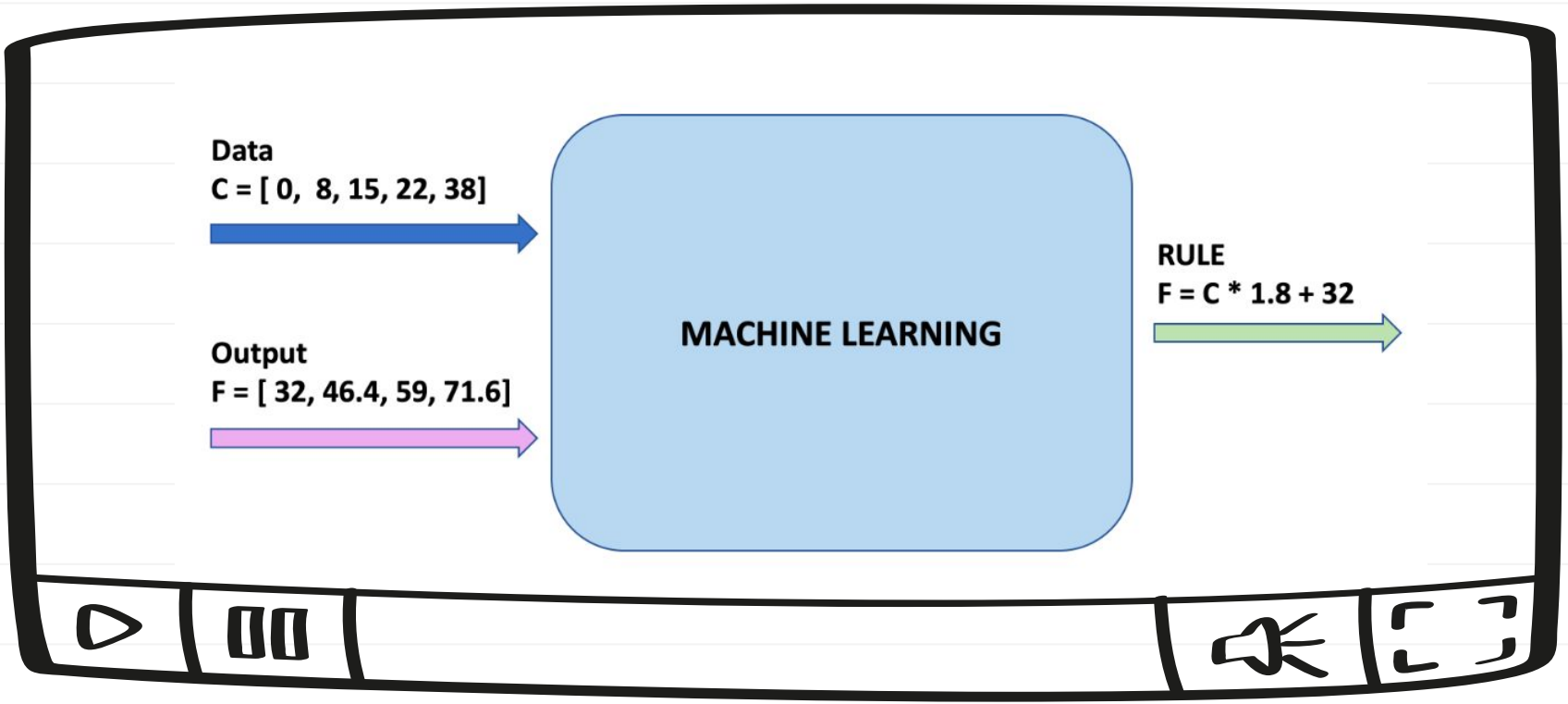



Input:
0,8,15,22
def function(C):
Algorithm
return F
Output:
32, 46.4, 59, 71.6





Input:	0,	8,	15,	22,	38
Output:	32,	46.4,	59,	71.6,	100.4


Data
C = [0, 8, 15, 22, 38]
Output
F = [32, 46.4, 59, 71.6]
MACHINE LEARNING
RULE
F = C * 1.8 + 32

RESOURCES

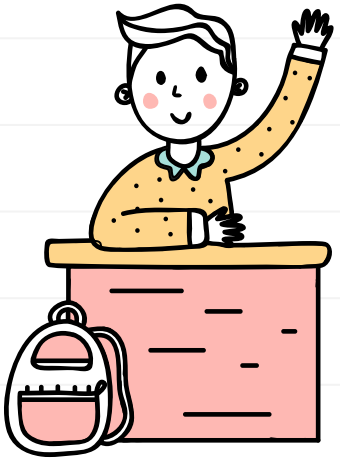
Intro to TensorFlow for Deep Learning

https://classroom.udacity.com/courses/ud187

Tensorflow
https://www.tensorflow.org/

Google Developers

https://developers.google.com/machine-learning/crash-course/ml-intro



THANK YOU =)