

### Maris Botero

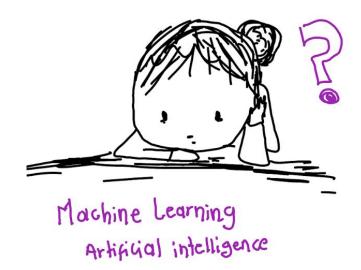
Data scientist,
@DataScienceFEM | @pyladiesmed

Introduction to Machine Learning and Tensorflow

Women Techmakers
International Women's Day



# What is Artificial intelligence?





# What is Machine Learning?





## What is this topic about?



#### 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



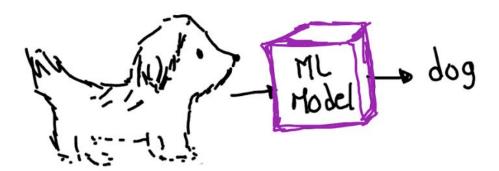
#### **Machine Learning**

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



# What is Machine 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, ?



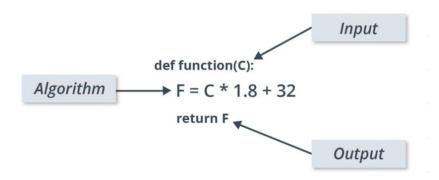
# What is this topic about?

$$F = C * 1.8 + 32$$

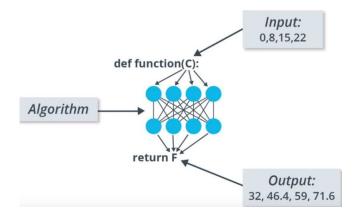
F = Fahrenheit

C = Celsius

## What is an algorithm?

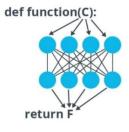


### What is a model?





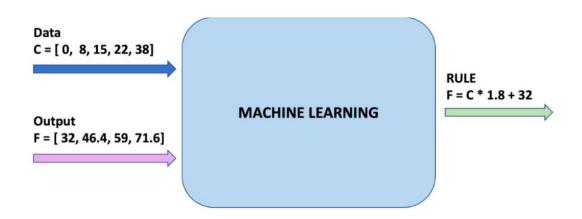
#### What is a model?



Input: 0, 8, 15, 22, 38

Output: 32, 46.4, 59, 71.6, 100.4

## What is this topic about?





## Tensorflow







