

# Introduction to Machine Learning



ChengCheng Tan WTM Ambassador



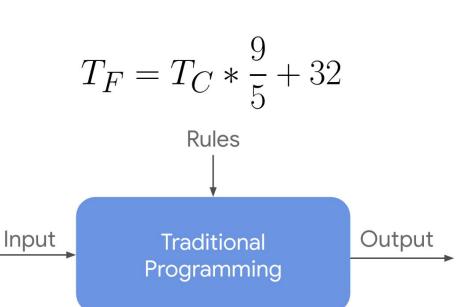
- 1. What is Machine Learning?
- 2. Data preparation
- 3. Model Training
- 4. Model Evaluation
- 5. Next steps... and more!



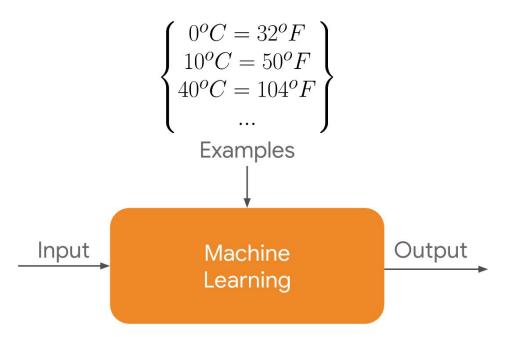
## What is Machine Learning (ML)?



## Traditional Programming



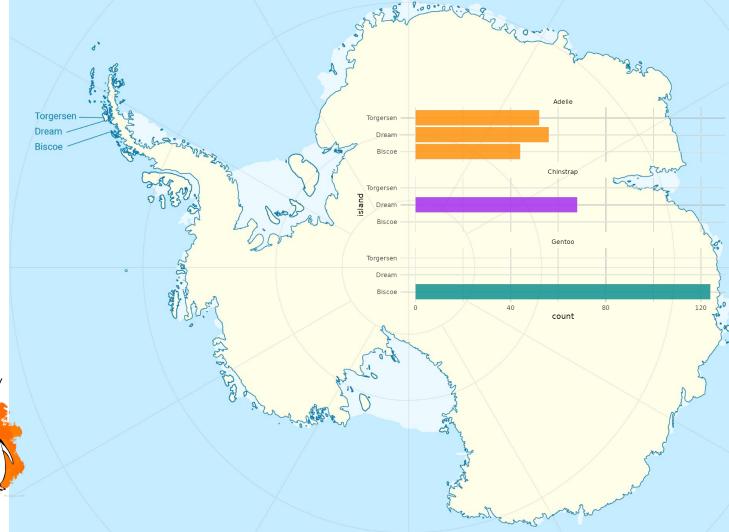
#### Machine Learning



### Data



### Palmer Penguins

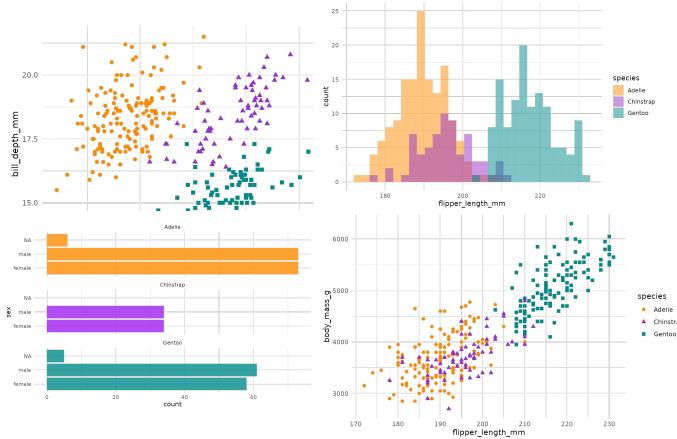




#### Data Exploration

- bill\_depth
- bill\_length
- flipper\_length
- body\_mass
- sex
- island

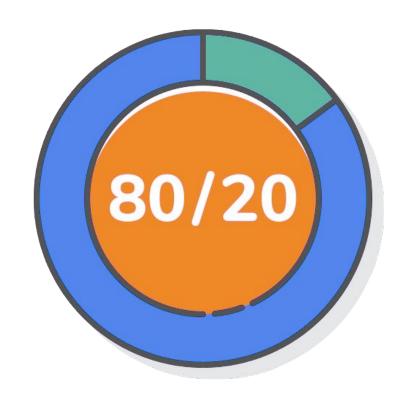




#### Data Preparation

- Input features: characteristics
- Output labels: target classes
- Training & testing split





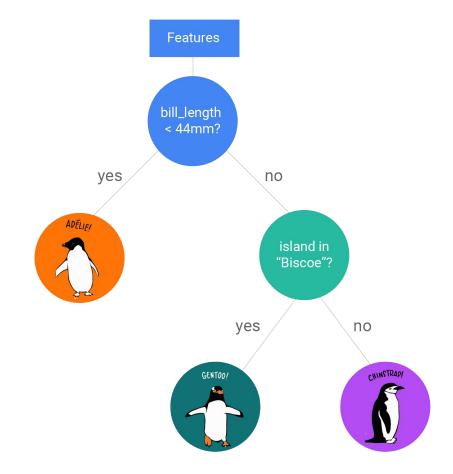


# Algorithm: Decision Tree

GENTOO!

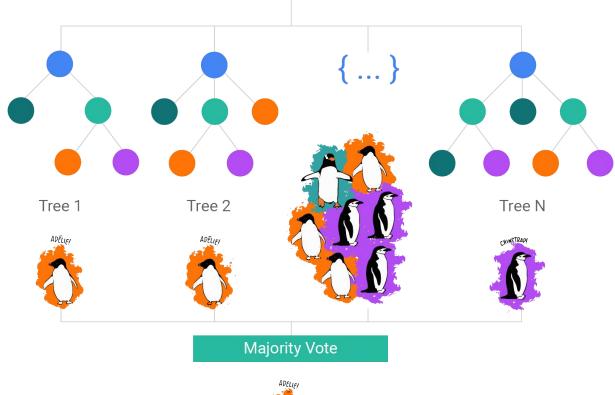
CHINSTRAPI

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# Algorithm: Decision Forest



**Features** 









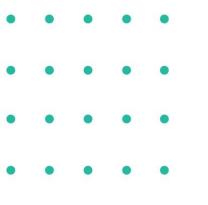
## https://bit.ly/WTM23\_introML

Google Colab Notebook



1. Setting up the environment



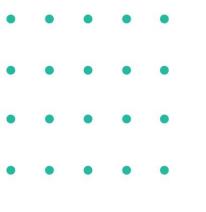


### 2. Get the Data



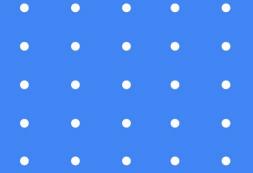






### 4. Evaluate the Model





### 5. More FREE resources!!





The best way of learning about anything is by doing...

You don't learn to walk by following rules. You learn by doing, and by falling over.

Richard Branson







# Introduction to Machine Learning



