Women Techmakers

Introduction to Machine Learning

ChengCheng Tan
WTM Ambassador

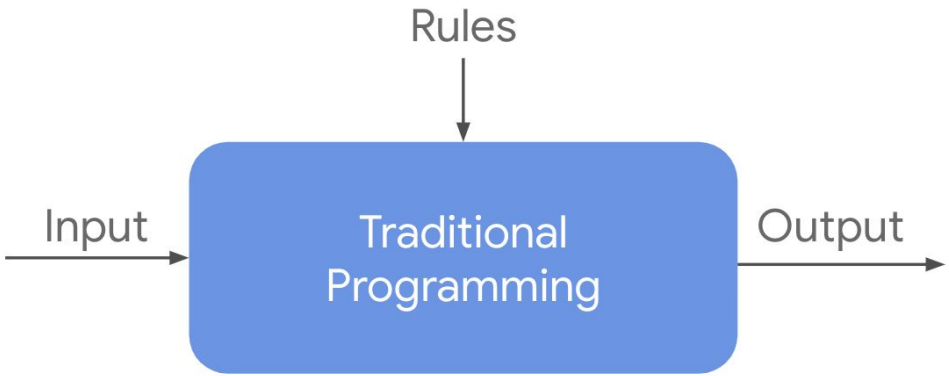
Philippa Burgess
WTM Ambassador

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

$$T_F = T_C * \frac{9}{5} + 32$$



Women Techmakers

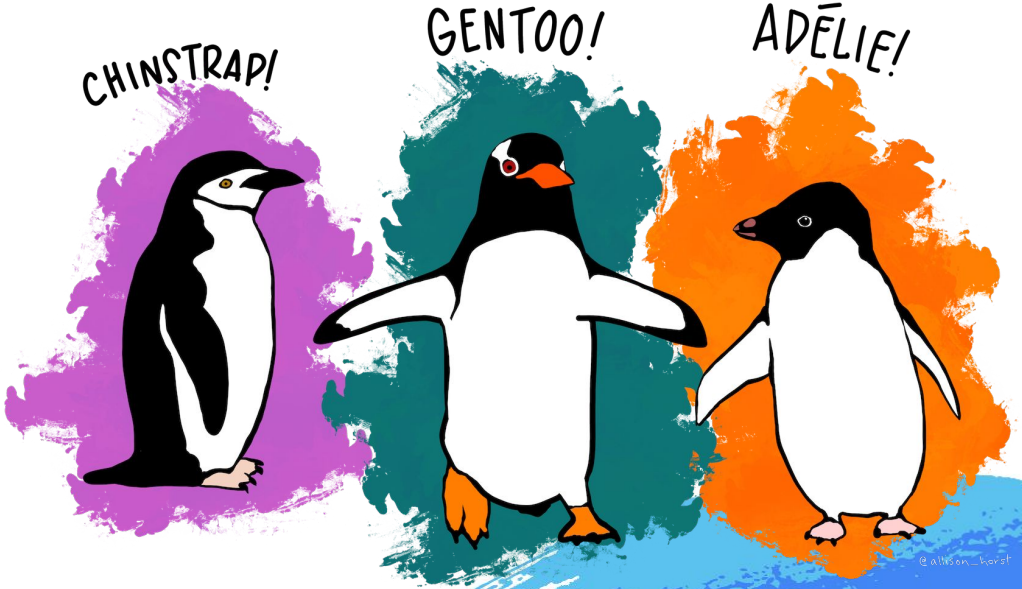
Machine Learning

$$\left\{ \begin{array}{c} 0^oC = 32^oF \\ 10^oC = 50^oF \\ 40^oC = 104^oF \\ \dots \end{array} \right\}$$

Examples

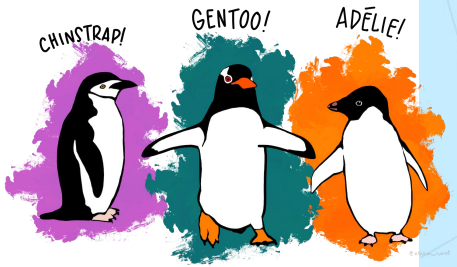
Women Techmakers

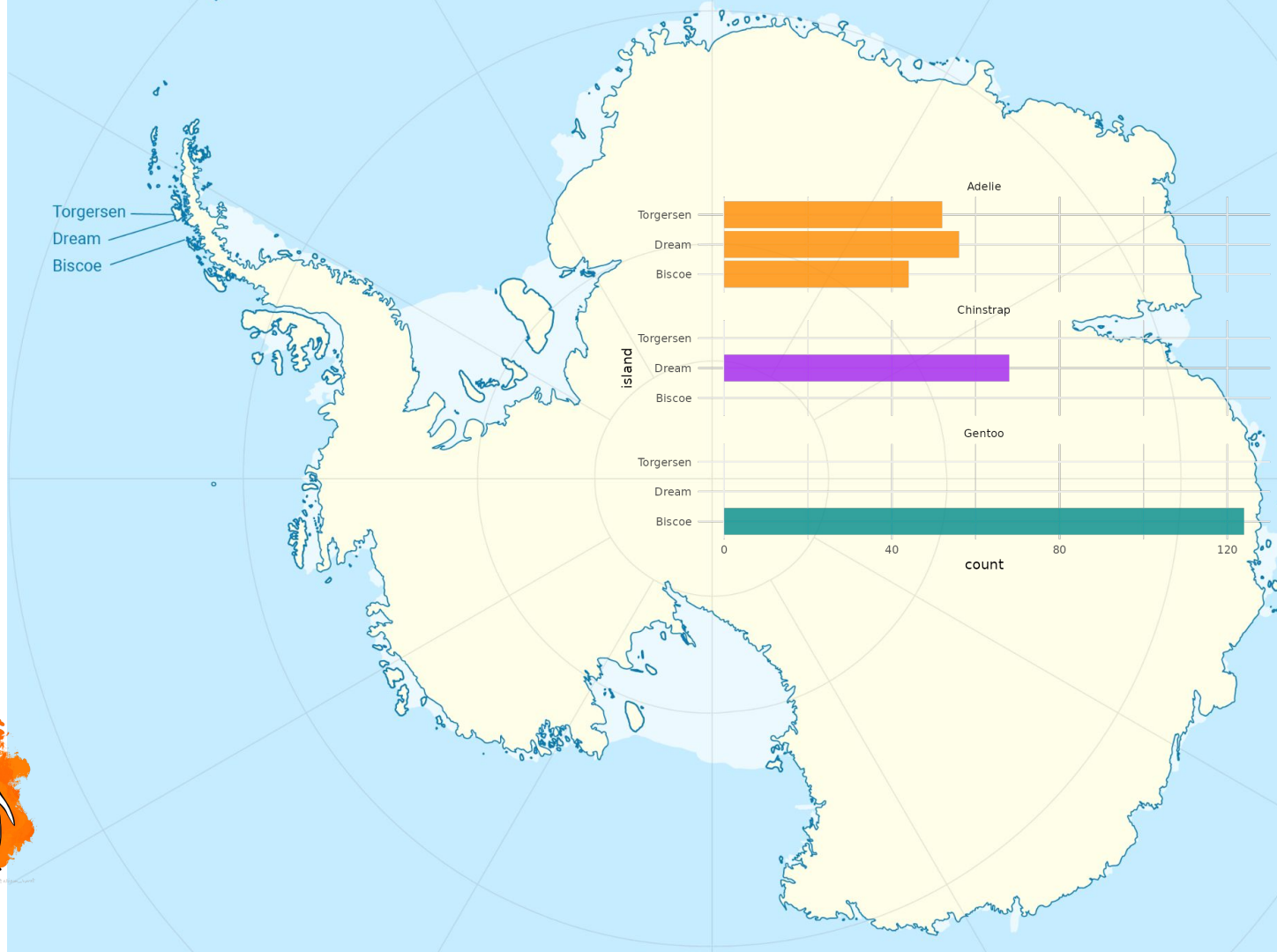
Data



Women Techmakers

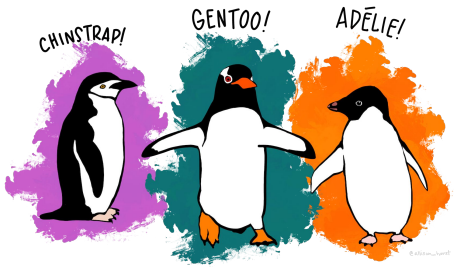
Palmer Penguins

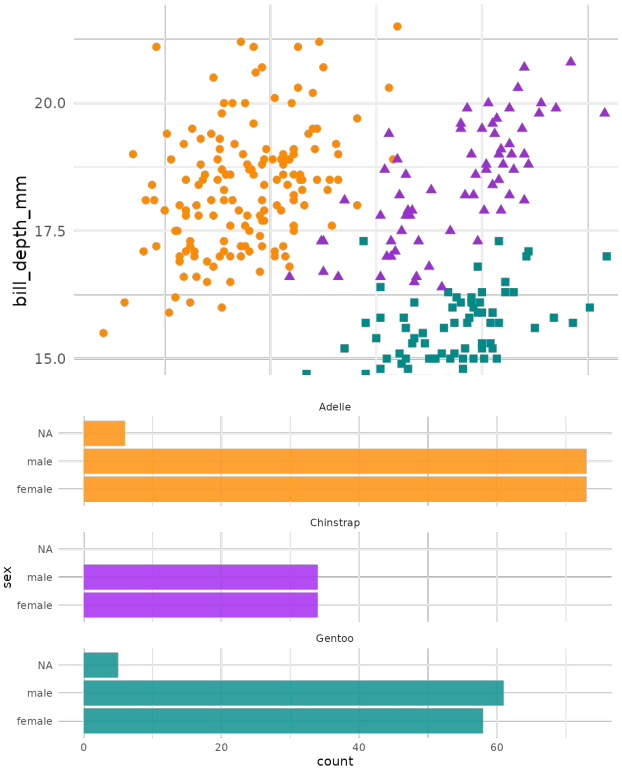


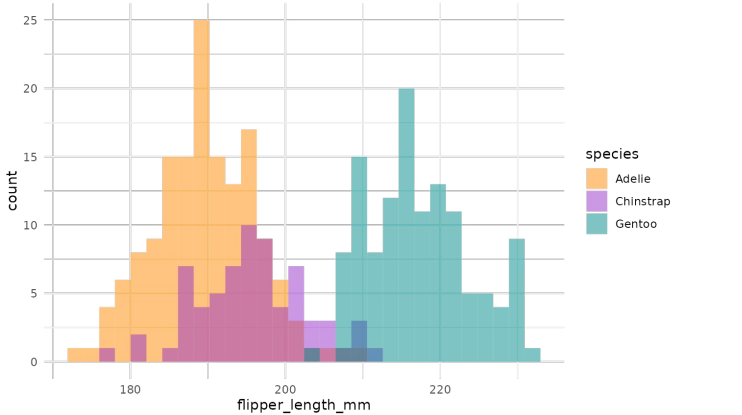


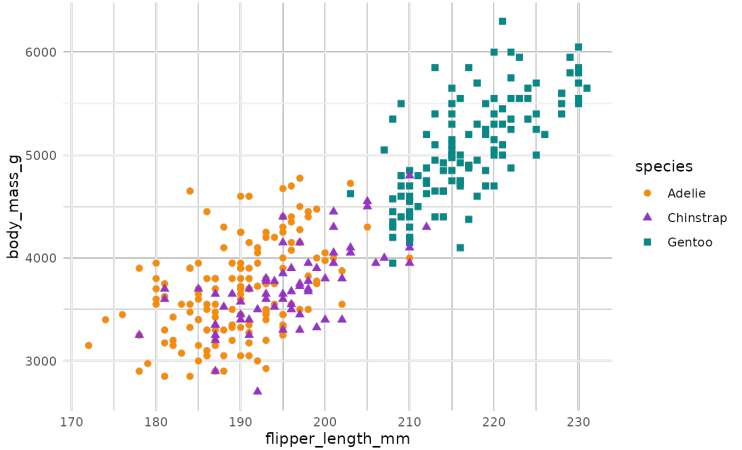
Data Exploration

- bill_depth
- bill_length
- flipper_length
- body_mass
- sex
- island



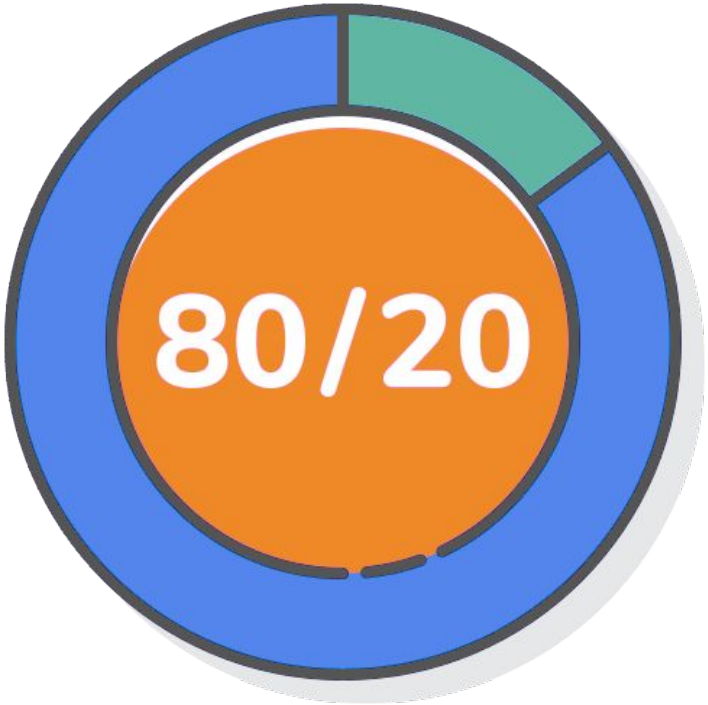




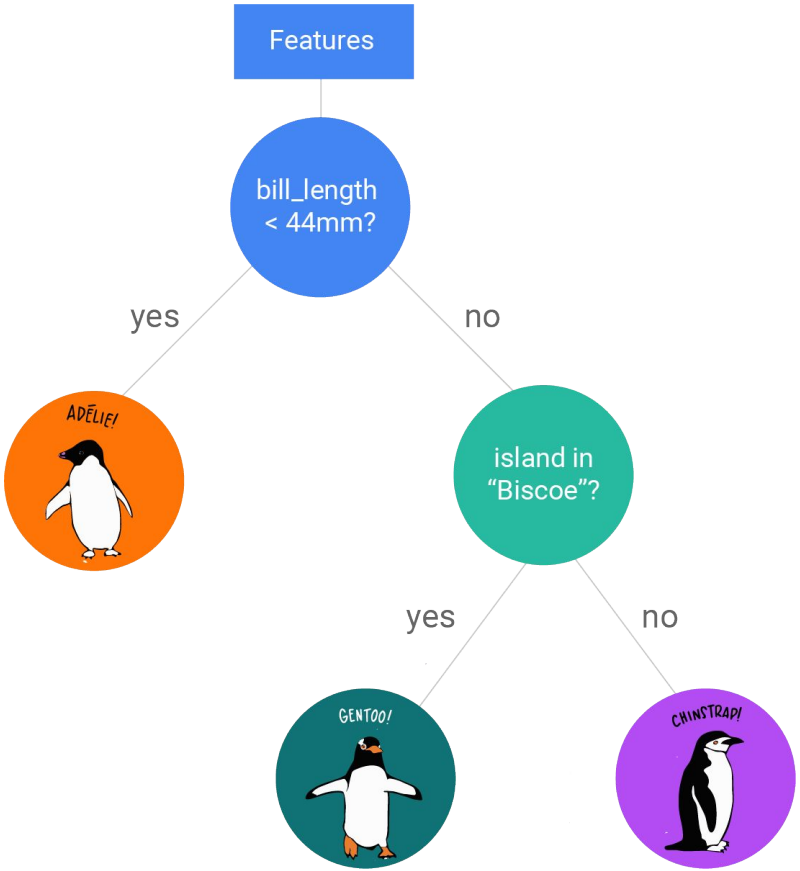


Data Preparation

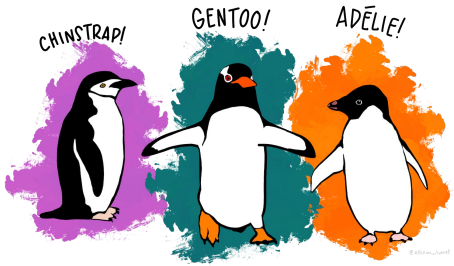
- Input features: characteristics
- Output labels: target classes
- Training & testing split



Algorithm: Decision Tree

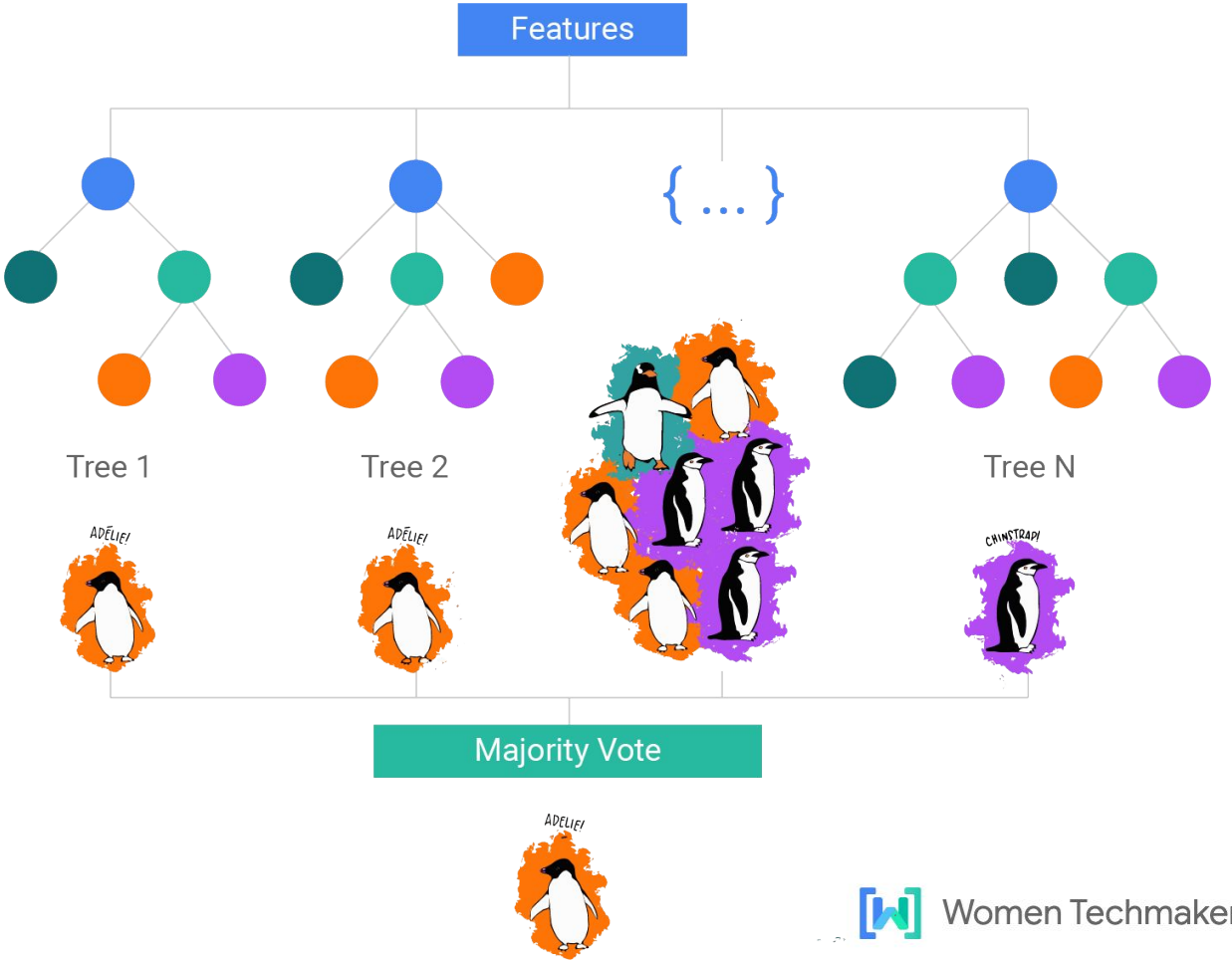


2 1 0



Women Techmakers

Algorithm: Decision Forest



Women Techmakers

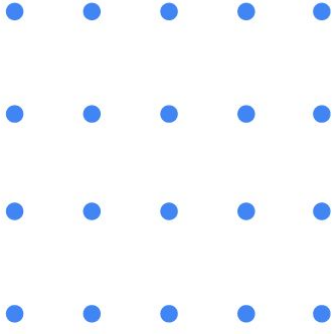
https://bit.ly/WTM23_introML

Google Colab Notebook

Women Techmakers

1. Setting up the environment

2. Get the Data



3. Train the Model

4. Evaluate the Model

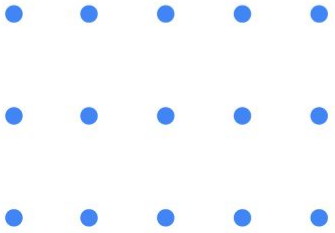
5. More FREE resources!!

Women Techmakers

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



Women Techmakers