

# Introducción

ML is applied in optimization problems in production oil.

## 0.1 Decision trees

according to a measure of impurity as gini or entropy we could formulate a algorithm to split the decision space.

## 0.2 A priori algorithm

is usually used in marketing recommendation systems.

$$\begin{bmatrix} x_1 & x_2 & \dots & x_n \end{bmatrix} \begin{bmatrix} w_1 \\ w_2 \\ \vdots \\ n \end{bmatrix} = \sum x_i w_i$$

**bold** word?

- k-means
- DBscan

$\frac{\partial f(x)}{\partial x}$  could be used to get a linear approximation of  $f(x)$  is a point.

$$\lim_{\Delta x \rightarrow \infty} \frac{f(x + \Delta x) - f(x)}{\Delta x} \tag{1}$$

$$e^1 = 2..... \tag{2}$$