

What are the **advantages** of a nearest neighbour classifier?

1

What are the **disadvantages** of a nearest neighbour classifier?

2

What is the most important concept in machine learning?

3

What are the three 'ingredients' of a machine learning algorithm?

4

What does this equation calculate?

$$a = \sum_{i=1}^F x_i w_i$$

5



What is the perceptron learning rule?

6

What does this equation calculate?

$$a = \frac{1}{1 + \exp(-\sum_{i=1}^d w_i x_i)}$$

7

Decision trees are good at handling  data but worse at handling  data.

8

- *Very computationally expensive for every classification*
- *Complexity depends on the number of dimensions*

- *Very accurate*
- *No learning process*

2

1

The model, the error function and the learning algorithm.

Never assume that you have all the data.

4

3

$newWeight = oldWeight + 0.1 \times (trueLabel - output) \times input$

The activation of the perceptron

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5

Decision trees are good at handling categorical data but worse at handling continuous data.

The activation of the perceptron for non-linearly separable data

8

7

What does this equation calculate?

$$H(X) = - \sum_i p(x_i) \log_2 p(x_i)$$

The entropy of a variable X