

# FACULTÉ DES SCIENCES APPLIQUÉES ELEN062-1 : Introduction to Machine Learning

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23 octobre 2022

# 1 Introduction

### 2 Classical algorithms

#### 2.1 Decision trees

a) text As we can see on the figure below the division of the 2 areas become more complex

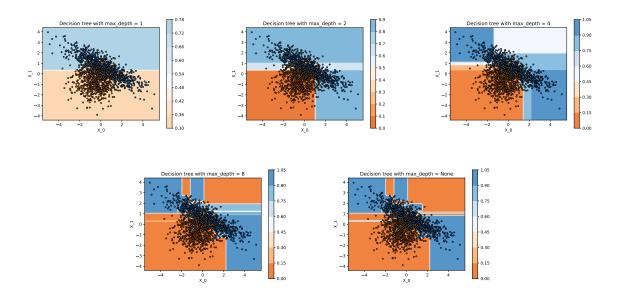


FIGURE 1 – Decision trees with different depths

with the depths of the tree. The tree with a depth of 8 is overfitting the data. The tree with a depth of 1 is underfitting the data. The depth 2 and 4 are the best compromise between underfitting and overfitting.

## 2.2 K-nearest neighbors

### 2.3 Quadratic/Linear discriminant analysis

## 3 Comparison