

Tutorial 05

(Version 1.1)

1. The two main ideas in support vector machines are the notion of a kernel and the notion of a maximum margin classifier.
 - (a) Explain what a maximum margin classifier is, and what its advantages are.
 - (b) What is a kernel in the context of a support vector machine?
2. What is the advantage of using a kernel in conjunction with a maximum margin classifier?
3. The idea of a soft margin classifier extends what is possible with a support vector classifier.
 - (a) Explain the aim behind soft margin classification.
 - (b) Explain how this aim is achieved through the use of slack variables.
4. What is support vector regression? What is its relationship with support vector classification?

Version list

- Version 1.0, January 30th 2020.
- Version 1.1, January 11th 2021.