Lecture 03: *"Classification"*

Book Chapter

Please read the *Chapter 03 **"Classification"** and answer the following Questions.

Keep in mind: If you answer these questions and write a detailed summary, you won't need to read these chapters again while preparing for the exam

Questions

1. Is a performance of 90% always a good result for a classification task? Explain in which situations it is bad.
2. What does the *confusion matrix* show?
3. How would the *confusion matrix* of a perfect classifier look like?
4. What does the metric *precision* state?
5. What does the metric *recall* (or *sensitivity* or *true positive rate*) state?
6. What does a *precision* of 0.72 and a *recall* of 0.75 mean?
7. What states the *F1-Score* and when is the score high?
8. What does the *precision/recall trade-off* state?
9. For a model where it is possible to compute a decision threshold: How can you determine a good *decision threshold*?
10. What does the ROC curve show?
11. When should you use the PR curve over the ROC curve?
12. Describe the *one-versus-the-rest* and *one-versus-one* strategy for multi class classifiers.
13. What is called a multilabel classification system?
14. What is a *multioutput classification* (or *multioutput-multiclass classification*?

Homework Assignment

1. Have a look on the Exercises on p. 108.
2. Download and run the file 03-Classification.zip
   - Solve the included Tasks
3. Happy Easter! Stay safe and healthy!
4. Find all the Easter eggs.