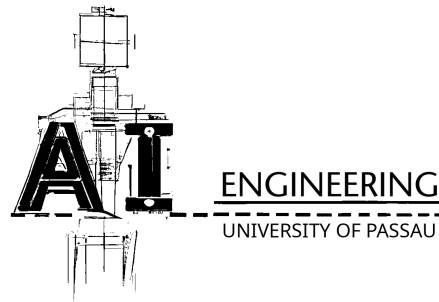


Principles of AI Engineering

Exercise 10

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Project task

You were given an updated data set that, in the next exercise, will be used to retrain the model. (`sample2.csv.gz` in StudIP) But first, you need to investigate its fairness and risk factors.

Create a new Jupyter notebook in which you analyze the data set visually, e.g. draw graphs showing the composition of the data.

Questions

1. Describe actual and potential sources of bias in the data set.
2. Describe three examples of how fairness concerns can be included throughout the life cycle using the problem description and the fairness life cycle example from the lecture.
3. Describe three challenges for achieving a fair system that implements the problem description.
4. Describe shortcut learning based on the lecture slides. Given the problem description, describe whether there is a risk of shortcut learning. How could you mitigate the risk of shortcut learning.