

M4L1 Exercises

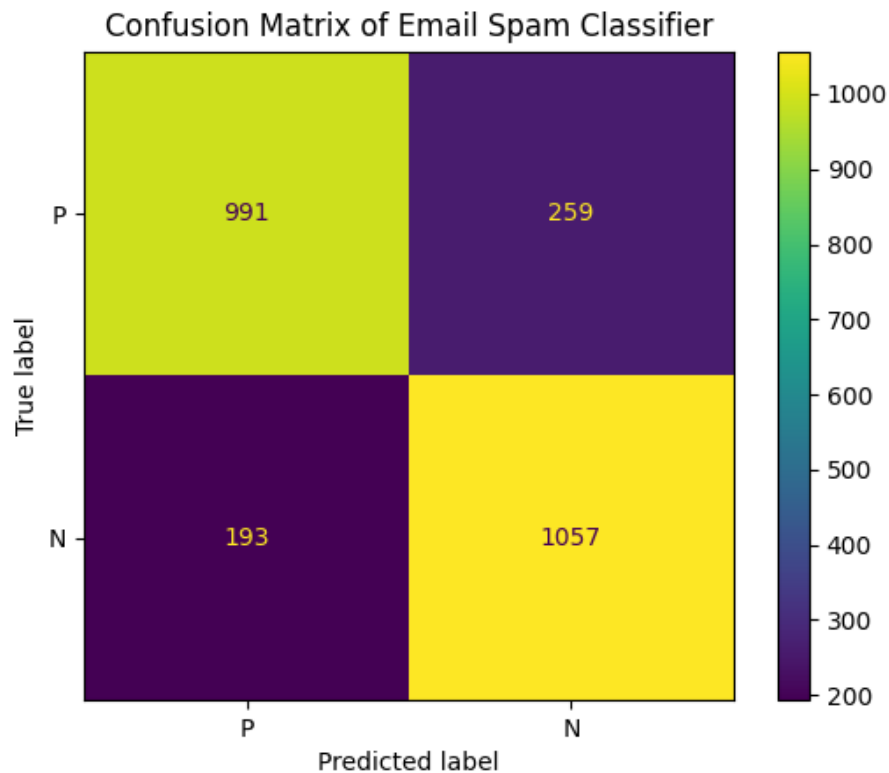
April 8, 2023

Exercise A

Following is the confusion matrix of a hypothetical machine learning model classifying spam emails where the default assumption is that emails are not spam. The “P” stands for “Positive” samples (spam), and the “N” stands for “Negative” samples (not spam.)

```
[1]: # display image
from IPython import display
display.Image("../prototype/emailspam.png")
```

[1]:



How many type II errors does this model have?

- a) There are 991 type II errors.

- b) There are 259 type II errors.
- c) There are 193 type II errors.
- d) There are 1057 type II errors.

Exercise B

What are Distance Metrics? Discuss two popular distance metrics used in Machine Learning.

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