



Internship report

[REDACTED]
Data Science MSc, University of Padua

Work, carried out

During the internship, following tasks were completed:

1. Selection of architecture of the neural network for the [REDACTED] task;
2. Preparing train, validation and test datasets for training neural network:
 - a. [REDACTED]
 - b. Manually labelling the [REDACTED] and types of objects, presented on the photos;
3. Writing code pipeline for data pre-processing, training, and evaluating [REDACTED]
4. Implementing an algorithm for downloading datasets [REDACTED]
5. Implementing an algorithm for evaluation of confusion matrix [REDACTED]
6. Visualizing image augmentation functions, and selecting proper augmentation pipeline for training the model;
7. [REDACTED]
8. Selecting the best hyperparameters (number of steps, training dataset size, batch size) for training the model;
9. Documenting theory of how a [REDACTED] operates;
10. Increasing performance metrics of the model up to 97.5% [REDACTED]
11. Implementing a loss curve visualization, [REDACTED]

Critical issues

During the internship, no critical issues were observed. Main tasks of the internship were completed.

Date:

03.10.2022

Signature: