

Challenge 2 - Final Phase

Multiclass Segmentation

Matteo Pacciani (Codice Persona 10525096 - Matricola 945104)

Oscar Pindaro (Codice Persona 10568511 - Matricola 946671)

Francesco Piro (Codice Persona 10534719 - Matricola 946450)

1 Problem Approach

For this second phase, we trained our models on the whole dataset of the first phase, that is, including images of the previous test set. As in the first phase, we used different architectures for the different combinations of team and crop. For example, we have a model that does the prediction for Pead Haricot only. We decided to keep the same models for predicting a certain combination of team and crop (Pead Haricot is now predicted by the same model of the previous phase). We tried initializing the weights with the previous train results, but we didn't notice any difference on the validation set with respect to retraining from scratch.

Training with the new images gave us a score of 0.7260 on the **Final Test Set**.

2 Reproducibility

We merged the new train images at runtime, so no custom zip file has been created. We used the same scripts that we implemented in the previous phase to create tiles and filter them, so please read the other report and the notebooks for instructions for creating our datasets. We used the same notebook that we used in the first phase to merge all the models and do the final prediction. Also this time we provide you with the link (<https://drive.google.com/drive/folders/1jvHfUNKOFcReSQLgm0IA3M79-PmXSSNc?usp=sharing>) to the shared folder in which checkpoints of all the models are contained. So you can train them or you can simply load the checkpoints.