

Penguin colony detection with deep learning.

Performance of U-Net as the amount of training data grows.

1 2nd-May-2018 — Exp: Performance of the model as the amount of training data grows.

The experiments are conducted 3 times independently. For each trial, all data is randomly divided into 5 folds. The last chunk of data is kept untouched for testing. The first fold is used for training the first model. The first and second are used for training the second model. Likewise, the third model is trained on three chunk of data and the fourth model trained on four. Thus, from the first model to the fourth model, each is introduced with more training data. All other settings are the same for all models.

The results are shown in Figure 1 and visualized in Figure 2 and Figure 3

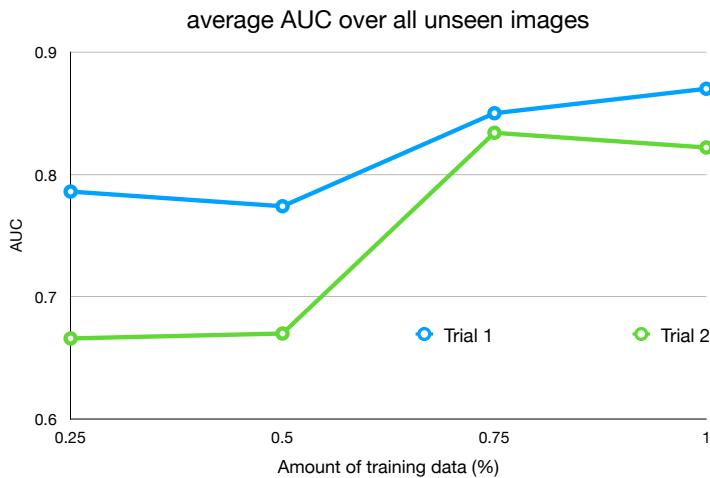


Fig. 1. Performance of U-Net with different amount of training data.

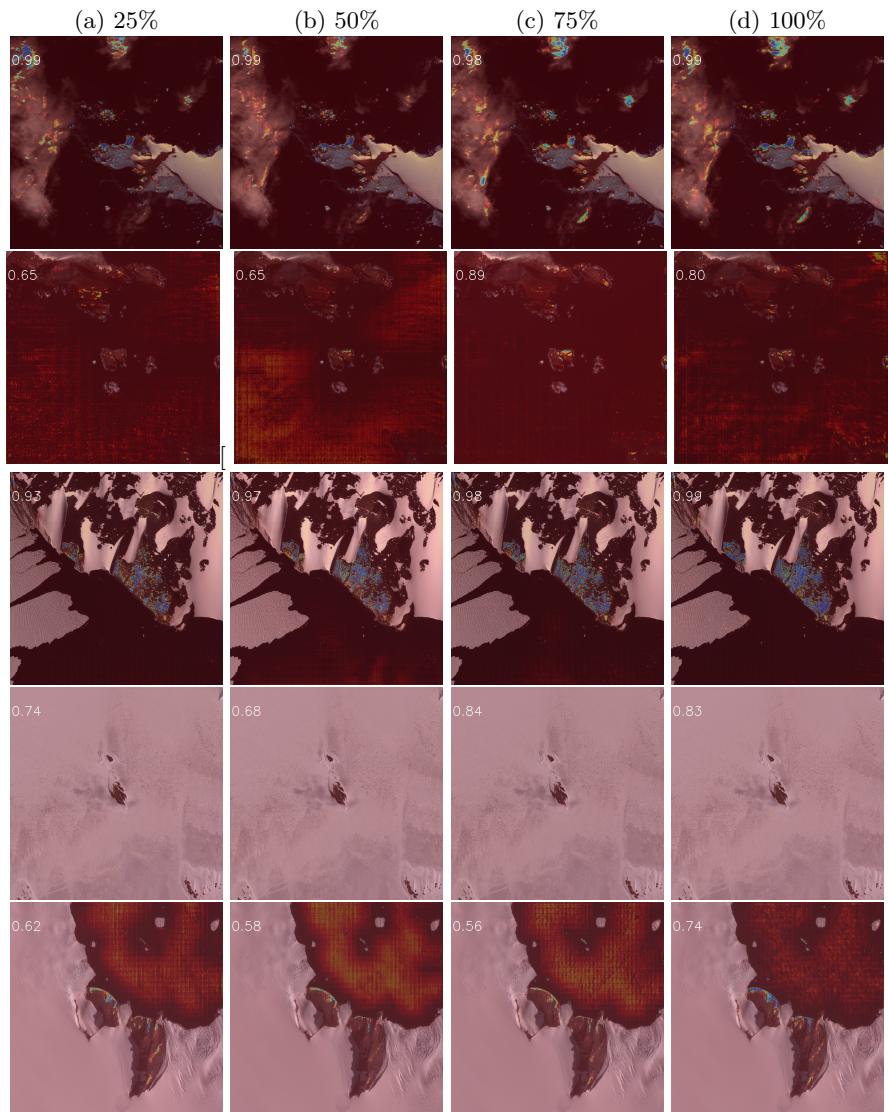


Fig. 2. Trial 1 Performance of U-Net with different amount of training data.

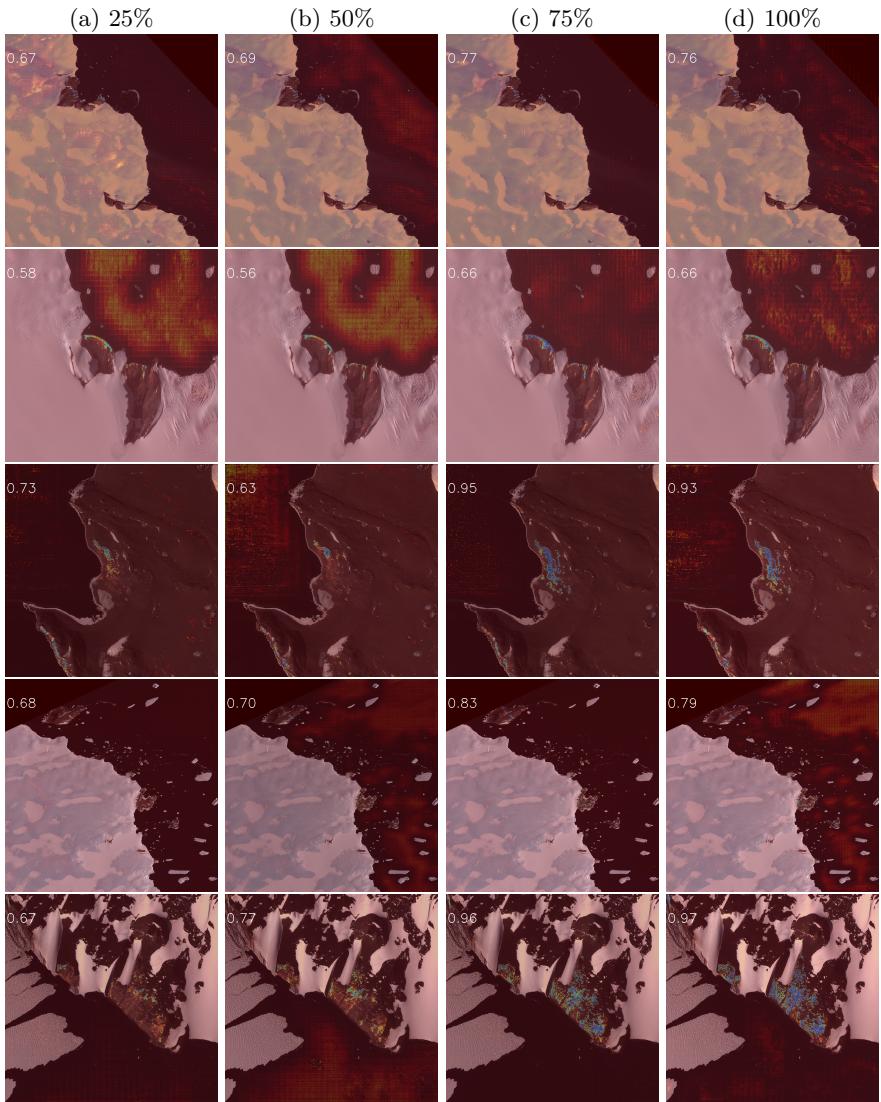


Fig. 3. Trial 2 Performance of U-Net with different amount of training data.