Abstract: In this report, we will look at potential improvements for our project, focusing on two main aspects: mountain name recognition and Sentinel-2 image matching.

1. **Mountain Name Recognition (NER for Mountain Names)**

To increase the effectiveness of our project in this area, we can take the following measures:

- *Increasing the volume of the training data set:*
  Expanding the size of the training data set will allow not only to improve the accuracy of the model, but also to provide a wider range of names and terminology related to the mountain topic. More data will help the model learn to recognize different spellings of names, which is important for increasing its adaptability to new and unexpected situations.
- *Testing alternative models:*
  In order to achieve better results, we can consider the possibility of using other architectures and algorithms that have already proven themselves in the field of NER. For example, the use of transformative models or more modern approaches can have a positive effect on the accuracy and speed of name recognition.

2. **Comparison of Sentinel-2 images**

To increase the effectiveness of our project in this area, we can take the following measures:

- *Research of new algorithms:*
  It is recommended to try different algorithms that can show better results in image matching. Such approaches could include other convolutional neural networks such as D2Net, or developing our own architecture that would allow us to approach the task more flexibly and customize it according to the specific requirements of our project.
- *Dataset expansion:*
  Increasing the number of images showing deforestation in different seasons can significantly improve the results of our algorithm. With a large amount of data, we will be able to try to train a convolutional neural network to detect key points with high accuracy, which in turn will contribute to more accurate and efficient image matching.