

1. **Neural machine translation with attention**
2. **Download and prepare the dataset**
3. **Limit the size of the dataset to experiment faster (optional)**
4. **Create a tf.data dataset**
5. **Write the encoder and decoder model**
7. **Define the optimizer and the loss function**
8. **Training**
9. **Translate**
10. **Restore the latest checkpoint and test**
11. **Image captioning with visual attention**
12. **Download and prepare the MS-COCO dataset**
13. **Optional: limit the size of the training set**
14. **Preprocess the images using InceptionV3**
15. **Initialize InceptionV3 and load the pretrained Imagenet weights**
16. **Caching the features extracted from InceptionV3**
17. **Preprocess and tokenize the captions**
18. **Split the data into training and testing**
19. **Create a tf.data dataset for training**
  - **Model**
  - **Checkpoint**
  - **Training**
  - **Caption!**
  - **Try it on your own images**