

- **Neural machine translation with attention**
- **Download and prepare the dataset**
- **Limit the size of the dataset to experiment faster (optional)**
- **Create a tf.data dataset**
- **Write the encoder and decoder model**
- **Define the optimizer and the loss function**
- **Training**
- **Translate**
- **Restore the latest checkpoint and test**
- **Image captioning with visual attention**
- **Download and prepare the MS-COCO dataset**
- **Optional: limit the size of the training set**
- **Preprocess the images using InceptionV3**
- **Initialize InceptionV3 and load the pretrained Imagenet weights**
- **Caching the features extracted from InceptionV3**
- **Preprocess and tokenize the captions**
- **Split the data into training and testing**
- **Create a tf.data dataset for training**
- **Model**
- **Checkpoint**