

Tutorial 11 Assignment (Due 04/12/17 by 11:59 PM)*Dayu Wang (45)***1. TensorFlow Programming****1.1. Training Dataset**

In this project, the **Flickr30k** dataset was chosen to serve as the training dataset, since the Flickr30k dataset has become a standard benchmark for sentence-based image description^[1]. Since the dataset is too big (way over the file size limit of GitHub), the dataset itself was not uploaded to the Git repository.

1.2. Number of Captions for Each Image: 4

```
def __init__(self,
             model,
             vocab,
             beam_size = 4,
             max_caption_length = 20,
             length_normalization_factor = 0.0):

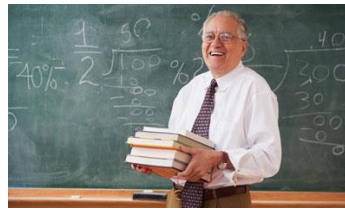
    self.vocab = vocab
    self.model = model

    self.beam_size = beam_size
    self.max_caption_length = max_caption_length
    self.length_normalization_factor = length_normalization_factor
```

1.3. Screenshots of Results



20170331_182809177_iOS.jpg



professor.jpg



Messi.jpg

```
Run run_inference
E c:\tf_jenkins\home\workspace\release-win\device\cpu\os\windows\tensorflow\core\framev
graph loaded
Captions for image 20170331_182809177_iOS.jpg:
0) a man in a straw hat uses a tool . (p=0.000022)
1) a man in a straw hat is sitting on a wooden bench . (p=0.000011)
2) a man in a straw hat is standing next to a tree . (p=0.000008)
3) a man in a straw hat is sitting on a bench . (p=0.000008)
Captions for image professor.jpg:
0) a man in a white shirt is standing in front of a reception desk . (p=0.000062)
1) a man in a black shirt is standing in front of a microphone . (p=0.000050)
2) a man in a white shirt is standing in front of a microphone . (p=0.000047)
3) a man in a white shirt is standing in front of a reception desk (p=0.000002)
Captions for image Messi.jpg:
0) a soccer player in red is running with the ball . (p=0.000565)
1) a soccer player in a red and white uniform runs towards the ball . (p=0.000066)
2) a soccer player in a red and white uniform is running on the field . (p=0.000034)
3) a soccer player in a red and white uniform is running with a ball . (p=0.000024)

Process finished with exit code 0
```

2. Web-Based Question Answering (Screenshot)

COMP-SCI 5542 (SP17) - Big Data Analytics and Applications

Tutorial 11 Assignment - Question 2

Dayu Wang (45)

Web-Based Question-Answering System for Emoji Impressions

Please give the URL of the input image (JPG Image ONLY).

<https://image.ibb.co/i3rYAa/3.jpg>

Please select a question type (Default set to be **emotion detection**).

☒ What is the emotion related to the emoji?

☐ Give me a Tweet for the emoji (Being Developed).

Submit

The emoji is probably representing: **Disgust**

3. Reference

- [1] Plummer, B. A., Wang, L., Cervantes, C. M., Caicedo, J. C., Hockenmaier, J., & Lazebnik, S. (2015). Flickr30k Entities: Collecting Region-to-Phrase Correspondences for Richer Image-to-Sentence Models. In *Proceedings of the IEEE International Conference on Computer Vision* (pp. 2641-2649). [View Original Paper](#)