Image Caption Generation

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Introduction

Image caption generation is a task that involves recognizing the context of an image and describing it in a natural language like English.

Dataset - Flickr8k

- It consists of 8000 unique images with five different captions.

- Kaggle link
  `https://www.kaggle.com/shadabhussain/flickr8k/`

Libraries

- numpy

- matplotlib

- tensorflow

- keras

Approach

- Data collection and preprocessing

- Extract the feature vector from all images

- Tokenizing the vocabulary

- Defining the CNN-RNN model

- Training the model

- Testing the model

Learnings

- Concept of Embeddings

- Concatenating CNN with LSTM

- Transfer Learning

Challenges

- Feature extraction from images

- Building the model

- Improving accuracy

GitHub Link

- https://github.com/NagaSruti/
  ImageCaptionGeneration_MLProject

Demo…