# 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.

# Libraries

- numpy
- matplotlib
- tensorflow
- keras

# Technology stack

- Python 3.8.5
- Google Colab
- GitLab
- Flask
- LaTeX

# 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

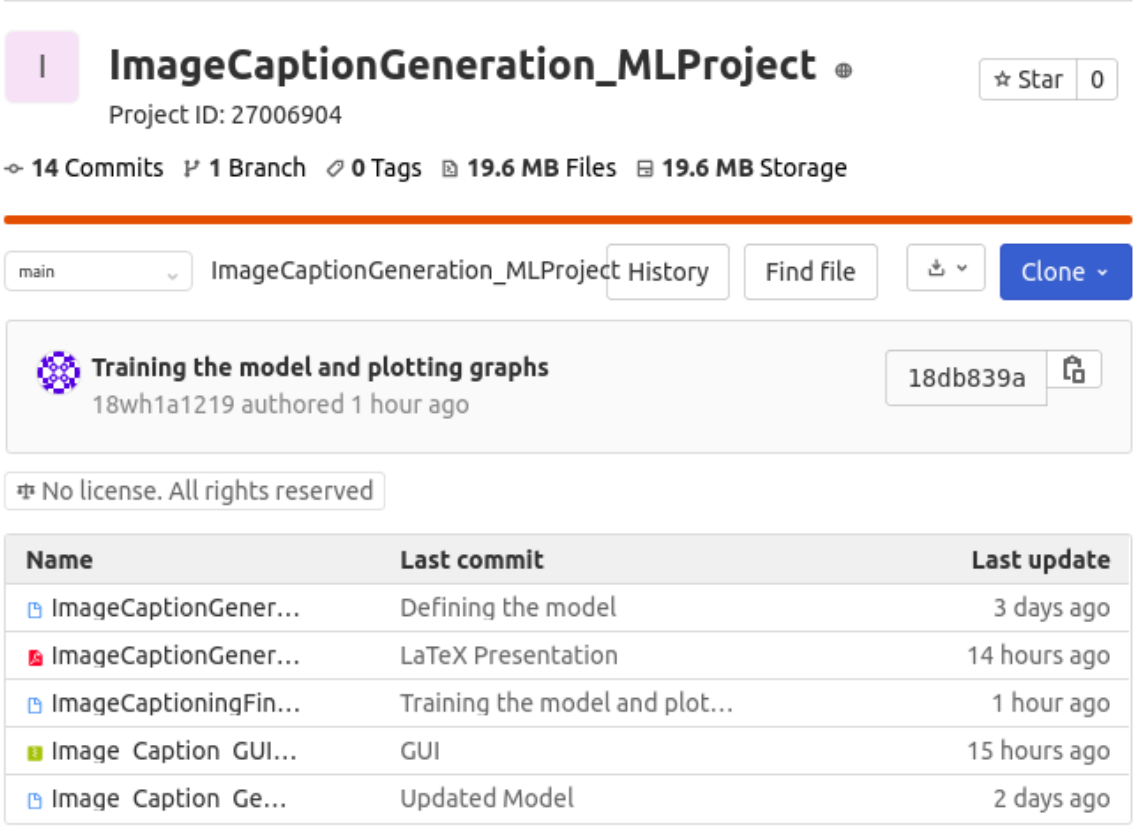
# Challenges

- Feature extraction from images
- Building the model
- Improving accuracy

# Statistics

- Lines of code - 226
- Number of functions - 6

# GitLab Repository



# References


- Dataset
  https://www.kaggle.com/shadabhussain/flickr8k/
- https://artificialintelligence.oodles.io/blogs/ai-powered-image-caption-generator/
- https://www.tensorflow.org/tutorials/text/image_captioning

*Demo…*