Capture Captions

Project Team :

1. **Rahul Jindal (19103033)**
2. **Mayank (19103042)**
3. **Aayush Singla (19103053)**
4. **Raman AilaWadhi (19103061)**

BACKGROUND

Over the last few years, with the rapid development of artificial intelligence, the generation of the caption of images has progressively caught the considerable interest of several artificial intelligence research groups and has become a fascinating and tedious mission. A large component of scene comprehension, which encompasses the knowledge of computer vision and natural language processing, is image caption, which produces natural language explanations according to the content observed in an image. The applications of such an image caption are substantial and noteworthy.

MOTIVATION

Our project's prime intention is to build an object detection and anomaly detection captioning module that produces captions from the features extracted from the input images. The module as a whole can help the visually impaired identify objects and can be employed to collaborate with humans in a wide range of domestic and industrial tasks. These environments require systems that are able to classify and communicate anomalous situations such as fires, injured persons, car accidents, or generally, any potentially dangerous situation for humans.

In addition to that this project will be a great platform for people to contribute to our anomaly detection dataset and earn rewards so that we can generate more accurate results using a large dataset.

OBJECTIVE

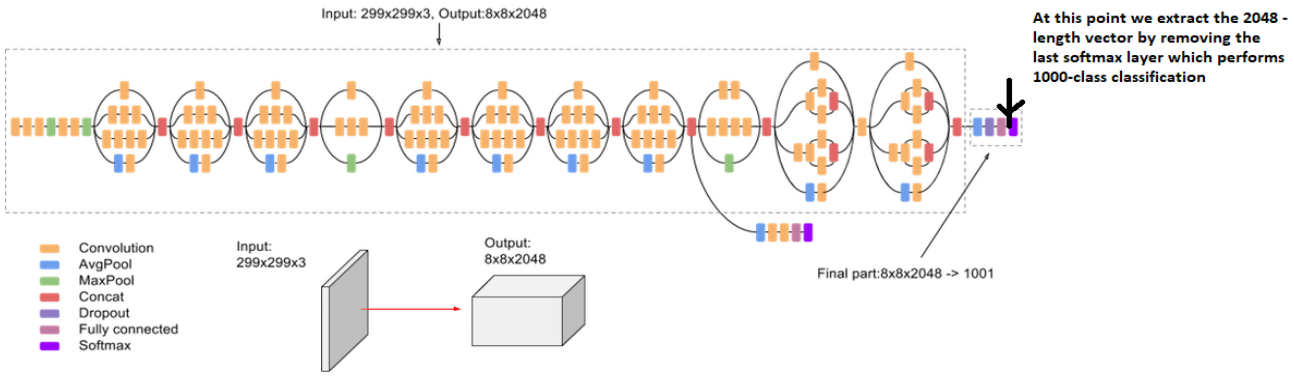
Our objective is to create an application that will generate relevant captions for identifying objects and anomalous situations . The steps to be followed are:

1. To explore various related datasets and perform data pre-processing in order to extract the desired attributes.

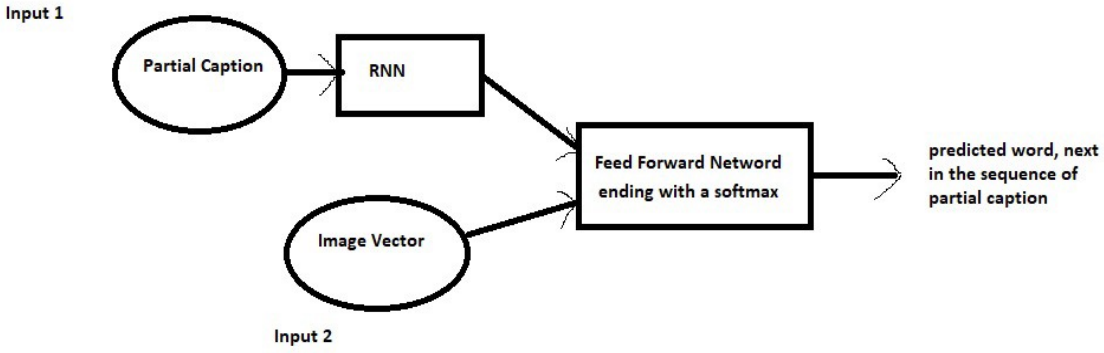
2. To perform model training using Deep Learning algorithms to generate the best matching captions corresponding to a given image.

PLAN

Step 1 : Generating 2048 feature vector for our image



Step 2 : Generating partial captions for our image using data generator



DELIVERABLES

The deliverable will be an application to generate captions to identify anomalous situations and object detection and also provide a platform for the end users to contribute to further improvement of our dataset which could be beneficial for accurate anomaly detection through the use of our deep learning model.