PROJECT PROPOSAL

- Project Title: Image analysis and questioning
- Project Team (Group – 8)
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- Project Goal and Objectives
  - ## Motivation

    Image Analysis is a developing field which has had many applications in the real world scenario. Be it developing a AI bot to monitor our streets to keep us safe or monitoring space feed to find anomalies or to process mages of blood cells to find cancer cells. This is how image analysis and AI combined have taken the standard of monitoring to a new level. This project is our take on this developing technology. We try to implement basic features and procedures to develop an application with Deep learning or machine learning. We also try to answer the question of which is the best of these both.

  - ## Significance/Uniqueness

    The significance of this application is that it is based on the image or video feed that is given as an instance. We not only extract the tags or annotations but also can ask queries regarding the instance. These queries are answered by the API, Machine Learning or Deep learning application. In the first phase, we use the clarifai API where image/video analysis is done. We try to extract more information using machine learning. Here we train the model by giving enough training sets thus, queries can be answered with more efficiency. Finally in the deep learning we add the intelligence aspect so more intelligent answers can be expected than the regular typical answers. So, this makes the application more interactive and fun to use.

  - ## Objectives

    The objective of this project is to implement basic deep learning features and give user an idea of how deep learning works.

- o System Features
  - Interactive user interface to post queries by users.
  - Incremental depth in image analysis.
  - Deep learning and Machine learning integration
  - Aspect of intelligent answering

- Related Work

  Google cloud vision API, Clarifai API, Dextro API. These are some applications of deep learning that does image and video analysis. These applications return specific tags for the given image or video but in our application basing on the given image the applications tries to answer the questions raised by the user.

- Backup Project

  Our back up project is Avatar Gen. Avatar gen uses machine learning and deep learning to implement a virtual avatar generation of a user by mapping his facial features and using it for virtual avatar generation. This will use labeled images and predefined facial features to develop a virtual avatar of the user.

- Bibliography

1. https://en.wikipedia.org/wiki/Image_analysis

2. https://www.clarifai.com/api

3. https://medium.com/@ageitgey/machine-learning-is-fun-part-3-deep-learning-and-convolutional-neural-networks-f40359318721#.i35mn3fpn