

Cartooning of an Image Using Python

Fundamentals of Artificial intelligence

CSCE 5210

Group 22:

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Motivation:

Usually, only cartoon specialists make cartoons. With current sophisticated technology and more libraries in Python, we can easily create it using our computers. In the currently available model, the cartoon exaggerates the target. Cartoons have this feature, and that is what makes their cartoons. It is very difficult to convey to every user the exaggeration in the cartoon. A study that creates cartoon-like images with a computer has been developed to help novices easily create cartoons. However, most cartoon rendering systems cannot give their results in various ways, since their results are generated according to a fixed algorithm. There are also other cartoon rendering methods that use textures or use user interaction to produce different results. Unfortunately, these methods are not intuitive.

Significance:

It takes a lot of time and space to create a cartoon effect. Currently, the cartoon-effect solutions available are complicated. Other solutions involve performing certain tasks by the user, while others require installing complex software like Photoshop. [ToonyPhotos](#) is an existing website to perform such a task, but it is difficult to use as the user has to mark down points & lines on the image to apply effects, which isn't very user-friendly. Also, the options are limited. In this regard, there is a great need for a site that is user-friendly and which is capable of imposing visual effects on images.

Objectives:

With this idea, users are able to easily create cartoon output images through the use of a cartooning method. Using the reference image as a guide, we deform the input image and apply it to cartooning. As a result, the user has control over the deforming / cartooning intensities of the target image.

Features:

The idea was to create cartoons using reference images. By deforming the target to the form of the reference image and adding cartoons to it, the resulting image is obtained. Every user can use it easily. A user can generate a variety of result images by adjusting the intensity of the deformation and cartooning. One of its limitations is that the reference image has to be pre-defined and provided with the feature point model.

References:

- [1] <https://projectgurukul.org/cartooning-image-opencv-python/>
- [2] <https://www.geeksforgeeks.org/cartooning-an-image-using-opencv-python/>

GitHub Link:

<https://github.com/Krishreddy11/Cartooning-the-Image>