###### In one sentence, what is the dataset and what are you trying to predict?

The dataset contains two parts, one is the cartoon portraits and the other one is their corresponding drafts. We are trying to achieve that when user uploads a hand drawn draft, the model will generate its cartoonized counterpart.

A drawing of a person

Description automatically generated with low confidence-> A picture containing text

Description automatically generated

###### Describe your dataset. How many classes (if doing classification), how many samples, how many features/pixels, class imbalance, etc. Provide a link to download your dataset (or some samples) and what the license is for use.

The dataset is consisted of cartoon portraits and corresponding sketches, about 400-1000 samples will be used, portraits will be gathered from internet, sketches will be generated by us.

Sample link: https://www.gwern.net/Danbooru2020

###### What kind of modeling were you thinking of doing?

We are thinking of building a model that can convert the sketches into cartoonized pictures. And might more than head portraits, which means convert the scenery into its comic style of pictures.

###### How will you use your results? Will your model be a part of a larger tool ecosystem you will implement this semester? Note: the group projects need to be more complex than individual assignments, so this is one way to achieve this requirement.

We can use ours results as our head portraits in the social platforms because this kind of portraits are very cute and they can protect our privacy. And this model can be a part of a larger tool to a more complex system.

###### Are you planning to publish this work as part of an academic paper? If so, please provide a link to the closest related work, and summarize what you believe your novel contribution will be.

So far, this model is only used in this course. However, if we have a chance to make it as the model in an academic paper and publish it, we will try our best to do that.

###### How will you divide up the work amongst your group members?

The members in our group will be divided into different works based on the requirement of this model. Some members focus on finding the suitable dataset and make it easier to process while others build the converted model and get the classifiers which can generate the best result.

###### How much memory will you need to store your dataset?

The memory we need should be less than 100GB in total.

###### How many hours of GPU compute time a week do you think you will need, and for how many?

We need to use the GPU to train our model for at least 40 hours per week.