**CAPSTONE 1 PROJECT IDEAS**

* Face Aging

The system will use Generative Adversarial Network (GAN) where it takes a face and produces another face of the same individual at a target age. During training, it compares this image with the real image of someone at that age with the original image and provides feedback, encouraging the former part to improve its abilities. I am still looking for a good dataset.

* Dogs vs Cats Image classification

The system will use Convolutional Neural Network (CNN) to classify if an image is a dog or a cat. Link to the dataset - <https://www.microsoft.com/en-us/download/details.aspx?id=54765>

* Twitter Sentimental Analysis

The training data is from <http://help.sentiment140.com/>. [Naive Bayes Classifier](https://en.wikipedia.org/wiki/Naive_Bayes_classifier)  will be used to learn the correct labels from this training set and do a binary classification. In a nut shell, the Naive Bayes theorem calculates the probability of a certain event happening based on the joint probabilistic distributions of certain other events. Full documentation and terms of the API are available at [developer.twitter.com/en/docs](https://developer.twitter.com/en/docs).

* Breast Cancer prediction

The system will use Artificial Neural Networks (ANN). Features are computed from a digitized image of a fine needle aspirate (FNA) of a breast mass. They describe characteristics of the cell nuclei present in the image. Attribute Information: 1) ID number 2) Diagnosis (M = malignant, B = benign) 3-32)

Dataset from -

<https://archive.ics.uci.edu/ml/datasets/Breast+Cancer+Wisconsin+(Diagnostic)>