Visual Design Ideation

This project was developed at Fresh Gravity Software Services Pvt. Ltd.

The project involved development of two modules :

- Visual Search - Given an image, use a Neural Network based model to find similar images. This is a more efficient searching mechanism than the conventional approach.
- Visual Design - Given an image, allow a user to edit the image using a number of tools (e.g. Draw). Given this basic user input, use a Generative Adversarial Network to complete the image into a more realistic format.

Approach

I was responsible for the development of Convolutional Neural Network and Deep Convolutional Generative Adversarial Network.
These algorithms are coded in Python using libraries like Keras, Pandas etc.
I was also responsible for optimizing the DCGAN algorithm to increase the accuracy and decrease the execution time.
Apart from the implementation, I was also responsible for performing Stress testing for the model.