

# Machine learning

## Term Project

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## Convert Male picture to female and vice-versa with Machine Learning

-observe the following results.



Here the first image is converted into second by a Machine learning model. This is really a fun application to show what machine learning can do. In its core, the application uses GAN (generative adversarial network), which is a type of Machine learning which is capable to new examples on its own.

### Requirements:

- Python
- Tensorflow
- GPU /laptop

\* Training a model using a GPU. the training takes 30 to 40 minutes~hours for one image.

### Development.

**Step 1:** Download the repository and extract it locally.

**Step 2:** Download the “Align&Cropped Images” from CelebA dataset. Create a datasets folder by name “dataset” and extract all images in it

**Step 3:** Train the model by:

```
python3 dm_main.py --run train
```

and then test it by passing the image to convert

```
python3 dm_main.py --run inference image.jpg
```