# Learn image auto-correction (brush restoration) and auto-enhancement from few training samples

Computer Vision (CS6350)
**TPA-8**

## 1. Problem Statement

The aim is not to restore old photos (although that can be a sub-task or ancillary), but create photo-realistic effects as created by manual professionals working in a studio, from old/archived photos.

## 2. Input:

Old/archived images (perhaps B/W)

## 3. Output:

Photo-finished outputs, with manually tuned color and contrast enhancements done (as typically expected in a professional & commercial photo-studio).

Assume a small number of training samples, as given below. You may use any auxiliary dataset for training, but note that:

(i) Simple Restoration tasks (anti-blur, scratch, spots & noise removal etc. are not intended here;
(ii) You cannot blame a dataset you choose (your responsibility) if the results are not along expected lines, as in sample below.

## 4. Dataset:

Dataset needs to be collected. This exercise is a part of the TPA.

## 5. References

https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.259.1365&rep=rep1&type=pdf

https://i.cs.hku.hk/~yzyu/publication/DNNphoto-tog2016.pdf, https://arxiv.org/abs/1412.7725

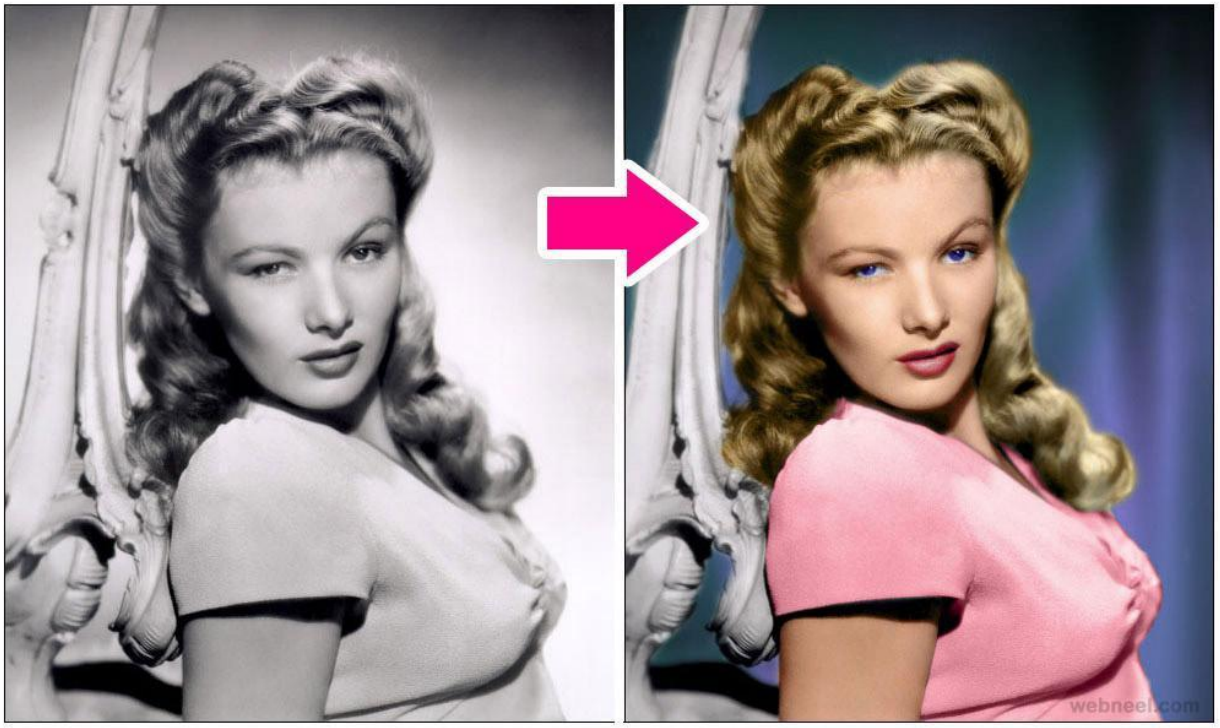
https://paperswithcode.com/task/image-restoration

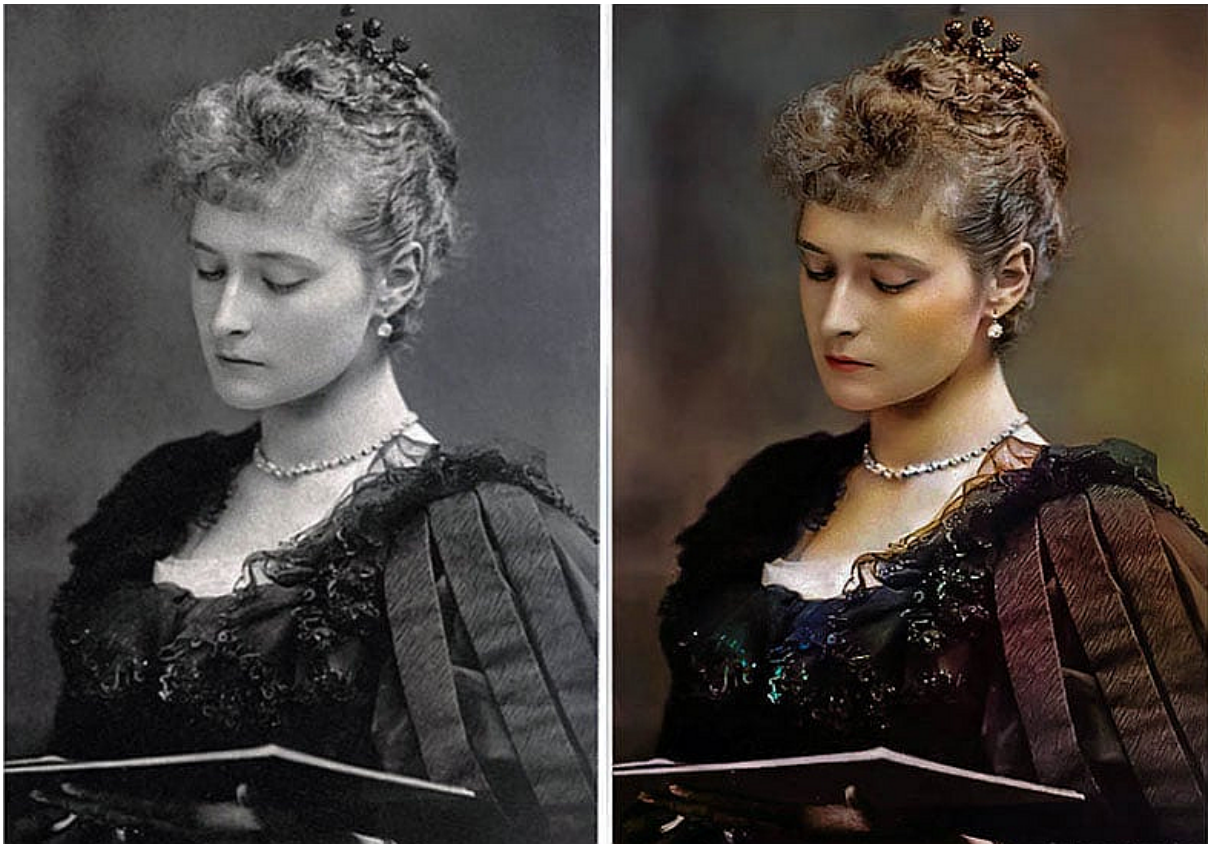
https://towardsdatascience.com/how-to-perform-image-restoration-absolutely-dataset-free-d08da1a1e96d

https://www.analyticsvidhya.com/blog/2020/02/what-is-autoencoder-enhance-image-resolution/

https://www.researchgate.net/publication/279036692_Computer-assisted_analysis_of_painting_brushstrokes_digital_image_processing_for_unsupervised_extraction_of_visible_features_from_van_Gogh%27s_works

Few Samples.


webneel.com



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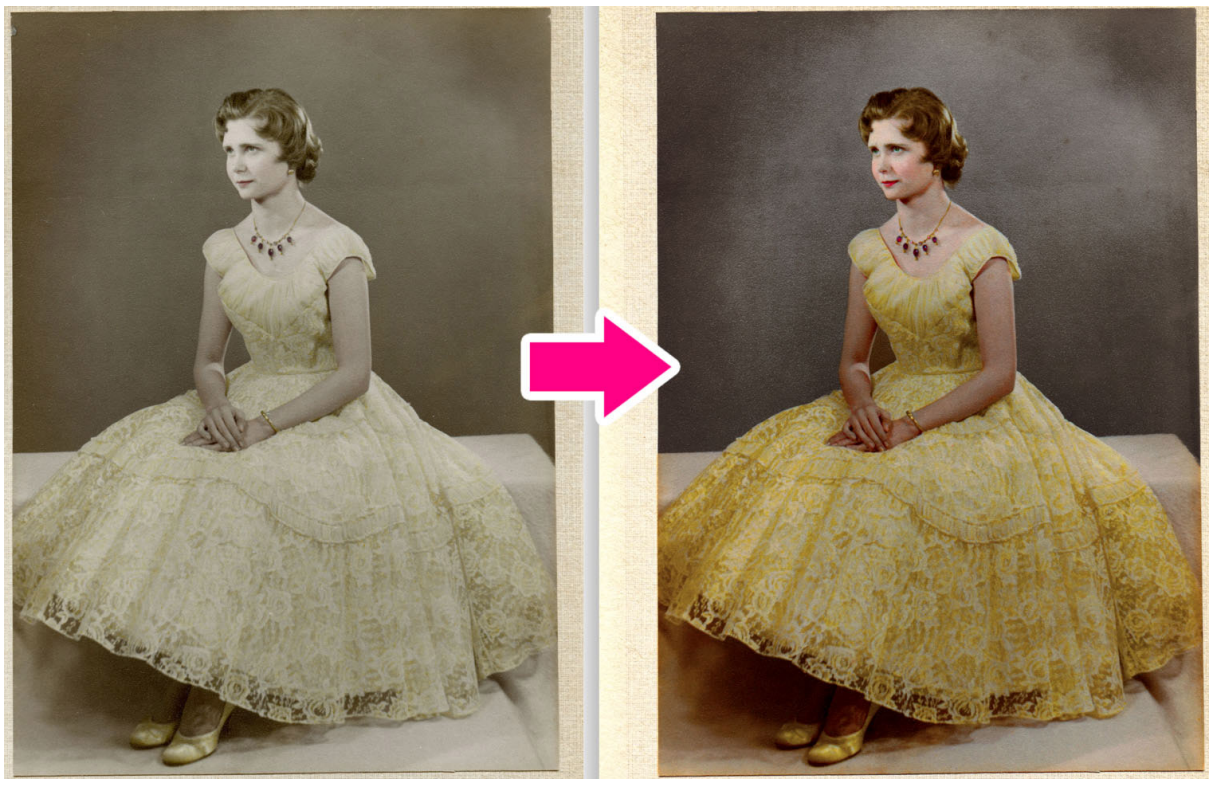

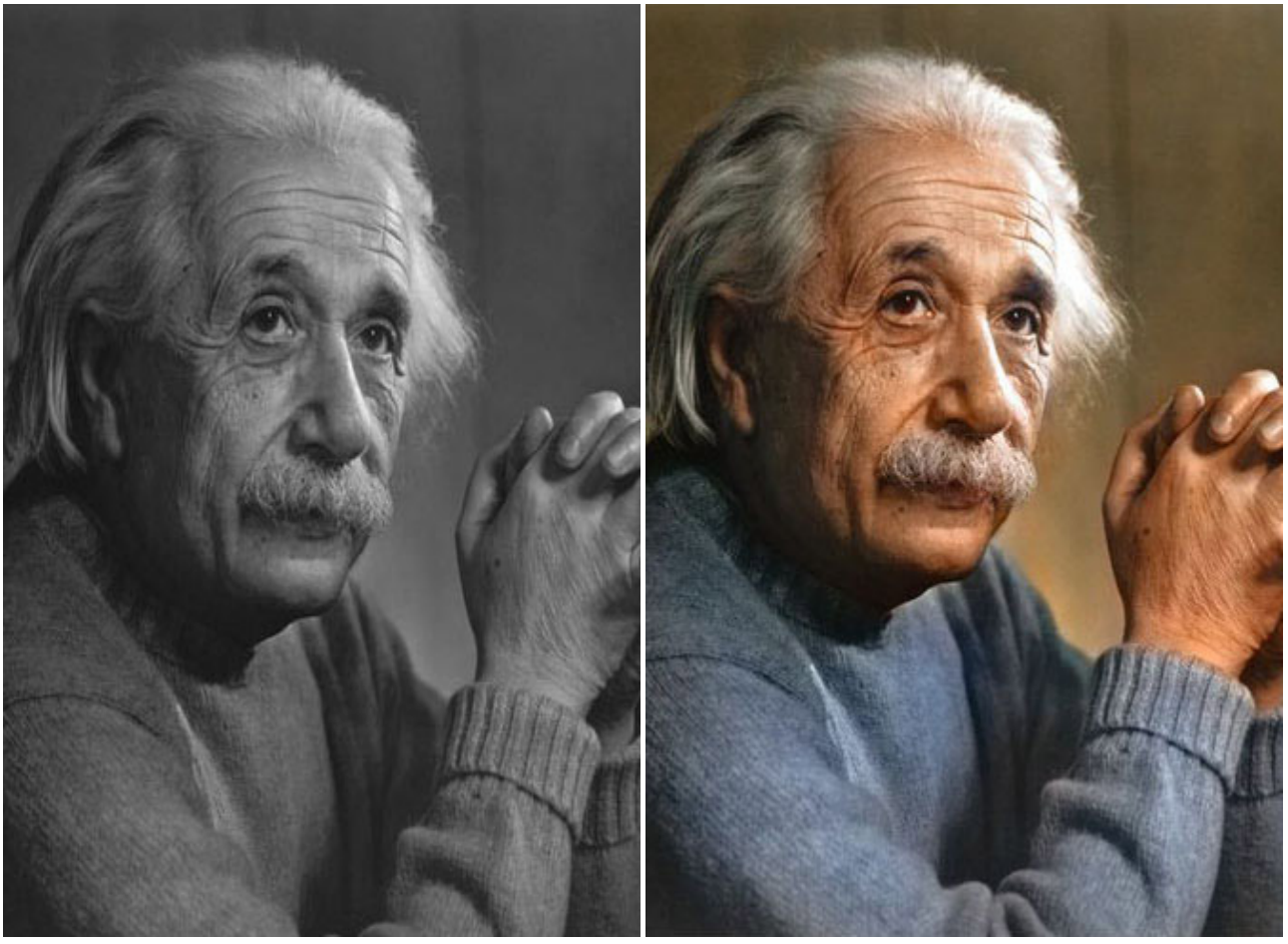

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