

## Project 6 - Style transfer

### Problem 1: Choose a recognizable style (2 points)

Choose a recognizable image style. This can be a painting style (e.g., impressionism, cubism, surrealism), a photography style (e.g., black and white, vintage, macro), or any other visual style that you find interesting.

**What to submit:** A description of the style you chose, and a three images that represents that style. Put them in a folder Problem-1.

### Problem 2: Take some pictures (3 points)

Take some pictures with your phone or camera, of any subject you like. Choose 3 pictures that you think would look interesting when transformed into the style you chose in Problem 1.

**What to submit:** The 3 pictures you choose, in a folder Problem-2.

### Problem 3: Style transfer (5 points)

Using the style transfer algorithm from the posted code, apply the style you chose in Problem 1 to the pictures you took in Problem 2. The algorithm uses one style and one content image. Try out all the possible combinations of the style and content images.

**Hint:** The algorithm may take some time to run. Also, in order for the algorithm to run, you will need to crop/resize the images to be square.

Discuss the results. Which combinations worked best? Why do you think that is?

**What to submit:** The 9 images generated by the style transfer algorithm, in a folder Problem-3. Also include a short discussion of the results in a markdown file named "Discussion.md" in the same folder.

### Problem 4: Style transfer with external software (4 bonus points)

Research the internet for software that can perform style transfer. List at least 3 different software options. Choose one of them and apply it to the same style and content images that you used in Problem 3. If the software does not require the style images, describe the corresponding style in words.

Compare the results with the ones you got from the algorithm in Problem 3.

**What to submit:** A list of the 3 software options you found, and the results from the one you chose, in a folder Problem-4. Also include a short discussion comparing the results with those from Problem 3 in a markdown file named "Discussion.md" in the same folder.

## **How to submit**

Submit a zip file with the name “Project-StyleTransfer.zip”, which contains 1 folder for Problem 1, and each folder contains the files that you generated for that problem.