

# Project L1: Tutorials and Style Transfer

Mid Progress Check – Oct. 12, 2017

Final Due Date – Oct. 19, 2017

Note on collaboration:

Collaboration's great! You may look at others' code, talk to them about the project, etc. as much as you like – but - you must write your own, *individual*, code and report, and be prepared to explain what it does.

## Part A): (125 Pts.)

This will include working through 2 modified Jupyter Python Notebooks, uploaded to Canvas as Tut\_1.ipynb and Tut\_2.ipyn. We've already started this in class, but finish it (w/ your partner) if you need to outside of class.

You don't need to write a report for this part, but can instead turn in your completed Jupyter Notebooks.

Instead of Tut\_2, I have an alternative for those willing to try it. This will involve writing an MNIST CNN – from scratch. Ask me if you're interested.

## Part B) Style Transfer (125 Pts.)

For style transfer you will work through Magnus Pedersen's Tutorial, #15, substituting your own base and content images. The Jupyter Notebook has been uploaded to Canvas, or you can download it directly.

You will also create a working python script (copying the relevant code from the notebook), and turn that in as well.

We'll show the class each other's results; we may come up with some interesting art. As usual, shoot for a short report on this, please.

## Extra Credit Opportunity) Style Transfer Music (100 pts.)

We're working on style transfer with images. There should be an analogous process that could be applied to songs. Creating that, using 1-D CNN's, instead of the 2-D CNN's for images, might work. If so, this might create some very interesting music.

If anyone wants to try this come talk to me.