

Color manipulation for photographic enhancement

Creating deep learning models that given an unprocessed image output an enhanced image mimicking the results provided by professional colorists/photographers is a problem that got a boost in attention in recent years. However, current models dealing with these conversions are quite cumbersome, and far from the few color modifications that a colorist or photographer is allowed to perform in an image. This generates the problem that, when a testing image is too different from the ones in the test set, the results are usually unrealistic.

In this project, we plan to tackle this problem. In particular, we aim to develop a new model (based on restricting deep learning architectures) that can be expressed in the form of a cascade of standard image photographic enhancements: Global tone correction, sharpening, color LUT (Look Up Table) postprocessing, etc.

This project is a collaboration with Prof. Michael Brown at York University.