Generalized Deep Image to Image Regression

Supplementary Material for CVPR17 submission # 2384

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Table 1: Training with batch size: 128, input size: 128x128

Figure 1: Denoising at $\sigma = 55$ for 12 commonly used test images, outside our training bounds ($\sigma \in [8, 50]$) for the 3-branch RBDN and DnCNN [1]. Red, Yellow, Green boxes show the PSNR.
Figure 2: Denoising at $\sigma = 55$ for test images from BSD300 [2], outside our training bounds ($\sigma \in [8, 50]$) for the 3-branch RBDN and DnCNN [1]. Red, Yellow, Green boxes show the PSNR.
Figure 3: Relighting results on images from the Janus CS0 [3] dataset. The goal is to render faces from various unknown lighting conditions to a fixed lighting condition. Odd rows: Inputs, Even Rows: 3-branch RBDN output. Note that the model is trained exclusively on frontal face images with constrained illumination variations from the CMU-MultiPie [4] dataset, but still generalizes reasonably well to unconstrained face images under a variety of poses, illuminations, expressions, occlusions, affordances (hats, glasses, etc.)
Figure 4: Colorizing legacy black-and-white photos: comparing 4-branch RBDN-Lab with the Colorful Colorization model of R.Zhang et al [5]
Figure 5: Colorizing legacy black-and-white photos: comparing 4-branch RBDN-Lab with the Colorful Colorization model of R.Zhang et al [5]
References


