DEEP LEARNING FOR IMAGE PROCESSING - EXAMPLES

Examples are taken from Keras and Google/Tensorflow libraries

https://keras.io/examples/
https://www.tensorflow.org/

IMAGE CLASSIFICATION

Sinple CNN - MNIST:
https://keras.io/examples/

Step-by-step image classification using CNNs (CIFAR10):
https://www.tensorflow.org/tutorials/images/cnn

Classification of images of flowers:
https://www.tensorflow.org/tutorials/images/classification

X-Ray pneumonia detection
https://keras.io/examples/vision/xray_classification_with_tpus/

IMAGE SEGMENTATION:

Image segmentation (Oxford pets database):
https://www.tensorflow.org/tutorials/images/segmentation

https://keras.io/examples/vision/oxford_pets_image_segmentation/

DATA AUGMENTATION:

Standard approach:
https://www.tensorflow.org/tutorials/images/data_augmentation

Cumix strategy:
https://keras.io/examples/vision/cutmix/

TRANSFER LEARNING:

Transfer Learning:
https://www.tensorflow.org/tutorials/images/transfer_learning

VIDEO RECOGNITION:

Scene recognition:
https://www.tensorflow.org/tutorials/video/video_classification

Image captioning:
https://keras.io/examples/vision/image_captioning/