This folder contains scripts used in the Mask R-CNN project. Some scripts are from the Matterport RMask R-CNN repo (<https://github.com/matterport/Mask_RCNN>), some are from the ImmersiveLimit repo (<https://github.com/akTwelve/cocosynth>) and others are original. Most scripts have been modified or tweaked for this project so it is best to work with these modified versions for the most faithful reproduction of our results.

Folder:

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mrcnn folder is required for running the neural network. The scripts here slightly modified from their original for our model. This can replace or be added alongside an existing Matterport M-RCNN installation but paths will need updating.

Files:

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RunMaskRCNN.py - configure and train the network

MaskRCNN\_Inference.py - run inference on trained network

compose\_images\_proj.py - script from Immersive Limit to create synthetic images (modified considerably)

coco\_json\_utils\_proj.py - script from Immersive Limit for create a COCO instances .json file (modified considerably)

coco\_create\_subset.py - original script to create a COCO instances .json file when generating random subsets of synthetic images. The Jupyter notebook provides a clearer illustration.

img\_process.py - original script of various image processing and annotating techniques. Some parts are unfinished/abandoned. More of a playground for experimentation.

COCOapi\_Test.py - script for trying out the original `pycocotools` COCO api. Same as in Jupyter Notebook.