

## DenseNet-161 Inference

- Trained network with pre-trained DenseNet-161 as encoder on Google Colab : Saved model
  - Nyu\_e10.h5 -> trained on 2500 images from NYUDepthv2 dataset; epochs=10; batch\_size=4; lr=0.0001
- Evaluate and test scripts written for evaluating network performance.
- Was able to run inference for accurate model on local machine and got the error metrics to evaluate performance. Took ~9 minutes to complete evaluation over 654 test images.

```
Testing...
100% |██████████████████████████████████████████████████████████████████████████████| 654/654 [09:28<00:00, 1.15it/s]
      a1,          a2,          a3,         rel,         rms,        log_10
    0.7269,       0.9363,       0.9835,     0.1776,       0.6118,       0.0754

Test time 568.1683777161026 s
```

- Implementation of approx\_model with custom\_conv reading values from a .csv file to get the approximate product values based on the multiplicands done.
- Currently trying:
  - Testing of approx model on Google Colab as it is too slow on local machine. Will give an update by eod.

**Google colab notebook:**

<https://colab.research.google.com/drive/1hR70s85isOyWzyo0-o8970rDvmbcUz6R?usp=sharing>

**Google drive for files used in training and testing DenseNet-161 encoder based model:**

<https://drive.google.com/drive/folders/1C639982wG5Bp4mwZaZmKJKMDCbSkVm6E?usp=sharing>