

Computer Vision-Super Image Resolution

Jap Purohit AU1940109 | Shail Patel AU1940142 Varun Deliwala AU1940034 | Sahil Miskeen AU1940267

CSE541 Computer Vision (Winter 2022)

Abstract

Understanding how to recover the finer texture details when we super-resolve at large upscaling factors.

Problem Formulation

- Recovering the finer texture details when we super-resolve at large upscaling factors.
- The possible ways to minimize the mean squared reconstruction error.

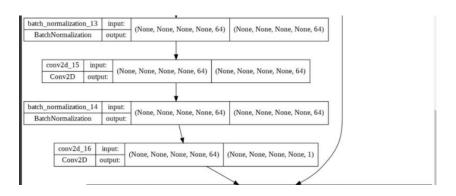
This are the problem we are working for this project.

Conclusion

 We observed that the loss was being reduced up to almost 70-80 percent as seen from the given image in result section. We need to refine the model further by introducing dynamic learning rates in the model trained which changes after a certain number of epochs.

Model / Flowchart

This model takes the clean image as input and aims to subtract the noisy image from the clean image in order to separate the noise. This noise is then subtracted from the final output image.



Results

Following are the results we obtain from modelling:

