

## PLAGIARISM SCAN REPORT

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#### 7.1 SUMMARY

Low Resolution and Black and White Images in the Hubble Legacy Archive lie dormant and are needed to be upscaled and colourized for better visual discernment of the astromers. Images are initially scraped from the Hubble Legacy Arhive and the Hubble Legacy Project and a dataset is formed which is cleaned manually and is then fed to two Generative Adversarial Networks consecutively. The images of size (64641) are initially colorized using a first GAN and an output image of size (64643) with three RGB channels is obtained. This is then upscaled to a size of ((64 n)(64 n)3). The output images are visually superior as well as colorized. These images are expected to be of greater use for astronomers than the older ones.

#### 7.2 CONCLUSION

The images are upscaled and colourized using a completely automated algorithm which uses Deep Learning. Generative Adversarial Networks are successfully used for the implementation and the images obtained are in public forum to be used for research, it is anticipated that this will aid the astronomers vastly in their efforts.

Sources

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