

Project Name

Super-Resolution Diffusion Models for Faces

Description

- Train a diffusion model for the specific task of super-resolution on images from the Flickr-Faces HQ dataset. Study an existing repo on Github (no official implementation has been released) and attempt super-resolution steps of increasing resolutions, as well as various magnification factors of 2x or 4x, similar to Google's paper on Iterative Refinement (SR3).
- Bonus tasks of testing your models performance on another dataset different from training, and on real world images and video clips. Discuss your findings on these tests (eg: did performance degrade, was the model temporally consistent with video clips) in your final deliverables.
- Resources:
<https://paperswithcode.com/paper/image-super-resolution-via-iterative>
<https://iterative-refinement.github.io/>
<https://cascaded-diffusion.github.io/>

Datasets

<https://github.com/NVlabs/ffhq-dataset>
<https://paperswithcode.com/dataset/celeba-hq>

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