Masked Loss and Partial Convolution to Ignore Unwanted Structures.

Julian Streibel
Max Meuer

TECHNISCHE UNIVERSITÄT DARMSTADT

TUDA Graphisch-Interaktive Systeme

Motivation

- Inpainting X-ray images
- Removal of watermarks, texts and crosshairs
- Learning from a single image using SinGAN

Method

- Creation of loss mask and masked input
- Training a SinGAN with masked loss and partial convolution
- Sampling with zero noise or injecting masked input

Results

- Capturing texture for big and small, not learned areas
- Varying results with big structures in not learned areas
- Long training time per image
- Instabilities with more scales

Cherry Picked Results