## Overview

**(2017)**
**Texture Journal Review**

🔗 https://drive.google.com/file/d/16RyIE6Il__JE
drive.google.com - view?usp=sharing

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**Perceptual Loss**

Find image representations that enable
- analysis
- synthesis
- manipulation of images

with respect to perceptual variables / constraints

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Search for measures of
- image quality
- image distortion

that have a better correspondence to human perception

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**Class of problems**

Texture
- texture synthesis
- image style transfer

Image Restoration
- image super-resolution
- image inpainting

High-level constraints
- attribute-based image synthesis
- sketch inversion

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## Non-parametric approach

**(1999)**
**Patch-based Nearest Neighbour**

🔗 https://drive.google.com/file/d/14rOJh0nYdI
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**(2000)**
**Tree-VQ**

🔗 https://drive.google.com/file/d/16hMIiXbvKz
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## Neural Style Transfer Algorithm

**(2015)**
**Texture Synthesis CNN**

🔗 https://drive.google.com/file/d/15OSBL9Lhe
drive.google.com - view?usp=sharing

**(2015)**
**Algorithm for Art Style**
**- Gram matrix**

🔗 https://drive.google.com/file/d/15MxWIFDzI
drive.google.com - view?usp=sharing

**(2016)**
**Image Style Transfer CNN**

🔗 https://drive.google.com/file/d/14IB9LALtCt
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## ↑↑↑

**Output Quality ↑↑↑**

**Power Spectrum Control**

**(2016)**
**Power Spectrum Control**

🔗 https://drive.google.com/file/d/17-bf1sKKE3
drive.google.com - view?usp=sharing

**Long Range Consistency**

**(2016)**
**Long Range Consistency**

🔗 https://drive.google.com/file/d/17DvwjaCNt
drive.google.com - view?usp=sharing

**Reflection**

**(2016)**
**Reflectance Modelling**

🔗 https://drive.google.com/file/d/17HYXRlKGC
drive.google.com - view?usp=sharing

**Photorealistic Facial Texture**

**(2016)**
**Photorealistic Facial Texture**

🔗 https://drive.google.com/file/d/17JFStM4CZ
drive.google.com - view?usp=sharing

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**Algorithm ↑↑↑**

**Patch-Based Photorealism**

**(2016)**
**Precomputed Real-time MGAN**

🔗 https://drive.google.com/file/d/16meUSoo8
drive.google.com - view?usp=sharing

**Attribute Control**

**(2016)**
**Semantic Spatial Control**

🔗 https://drive.google.com/file/d/16q7HR-uee
drive.google.com - view?usp=sharing

**General Improvement**

**(2017)**
**Spatial & Color Control**

🔗 https://drive.google.com/file/d/16KGK4Jo5f
drive.google.com - view?usp=sharing

**Portraits**

**(2016)**
**Portrait Style**

🔗 https://drive.google.com/file/d/16xRaZPqKII
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**Speed ↑↑↑**

**Training a separate Style Network**

**(2016)**
**Perceptual Loss**
**Real-time Style / Super-Resolution**

🔗 https://drive.google.com/file/d/1651839ShF
drive.google.com - view?usp=sharing

**(2016)**
**Feed-forward Texture Network**

🔗 https://drive.google.com/file/d/17N3PAIHg0
drive.google.com - view?usp=sharing

**(2017)**
**Improved Texture Network**

🔗 https://drive.google.com/file/d/17PpEO-B-K
drive.google.com - view?usp=sharing

**(2017)**
**Multimodal Transfer**

🔗 https://drive.google.com/file/d/17V7scwpXk
drive.google.com - view?usp=sharing

**Multi-Style**

**(2017)**
**Learned Representation**

🔗 https://drive.google.com/file/d/16EADk_85Q
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**Arbitrary Style**

**(2016)**
**Fast Patch-based**

🔗 https://drive.google.com/file/d/17bf65RVeJ
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**(2017)**
**Exploring Structure of Network**

🔗 https://drive.google.com/file/d/17bf65RVeJ
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**(2017)**
**Adaptive Instance Normalization**

🔗 https://drive.google.com/file/d/17io3YYMzI
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**Image Super-Resolution**

**(2016)**
**Super-Resolution Statistic**

🔗 https://drive.google.com/file/d/16mWNnrxM
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**(2017)**
**Image Super-Resolution with GAN**

🔗 https://drive.google.com/file/d/1-M_do0u3A
drive.google.com - view?usp=sharing

**(2017)**
**EnhanceNet**

🔗 https://drive.google.com/file/d/17uaoFhgmA
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**Image Inpainting**

**(2016)**
**Markov Random Field**

🔗 https://drive.google.com/file/d/188fhTEPF9i
drive.google.com - view?usp=sharing

**(2017)**
**Neural Patch Synthesis**

🔗 https://drive.google.com/file/d/188tIEvHJdC
drive.google.com - view?usp=sharing

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**Image Attribute Manipulation**

**(2016)**
**Attribute-driven Face Generation**

🔗 https://drive.google.com/file/d/18Fkns2ndG
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**(2017)**
**Deep Face Feature Interpolation**

🔗 https://drive.google.com/file/d/18hiBQsKrF
drive.google.com - view?usp=sharing

**(2017)**
**Face Swap**

🔗 https://drive.google.com/file/d/18Jt_i0w8aZ
drive.google.com - view?usp=sharing

**(2016)**
**Unsupervised Cross-Domain**

🔗 https://drive.google.com/file/d/18T-7px6IKd
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**Sketch Inversion**

**(2016)**
**Convolutional Sketch Inversion**

🔗 https://drive.google.com/file/d/18Tqlo5A-1w
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**(2016)**
**Sketch + Color**

🔗 https://drive.google.com/file/d/18aE-CKqbF
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## Other Perceptual Loss

**Visualizing by Image Synthesis**

**(2014)**
**Understand by Feature Inversion**

🔗 https://drive.google.com/file/d/18cmBMQ4A
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**(2015)**
**Understand by Deep Visualization**

🔗 https://drive.google.com/file/d/18dsKssUEs
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**Realistic Visualization**

**(2016)**
**Perceptual Similarity Metrics**

🔗 https://drive.google.com/file/d/18izMDIQHd
drive.google.com - view?usp=sharing

**(2016)**
**Preferred Input Neurons**

🔗 https://drive.google.com/file/d/18fs2F5Mcs
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**(2017)**
**Plug & Play**
**Conditional with Latent Space**

🔗 https://drive.google.com/file/d/18qhJ7V55a
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