

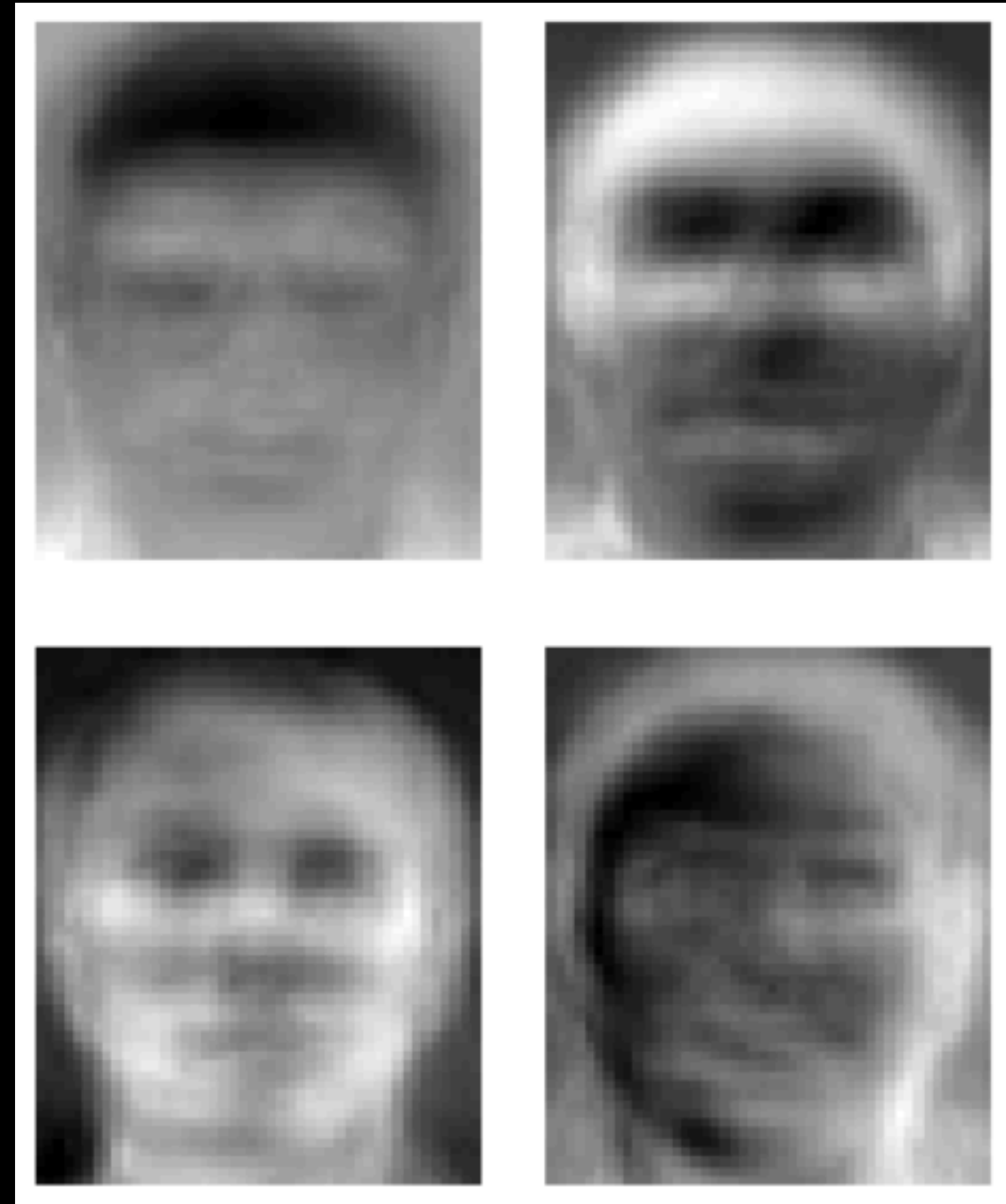
# CULTURAL AUTOMATION WITH MACHINE LEARNING

SESSION 06: GENERATIVE IMAGES

Parag K. Mital  
UCLA DMA

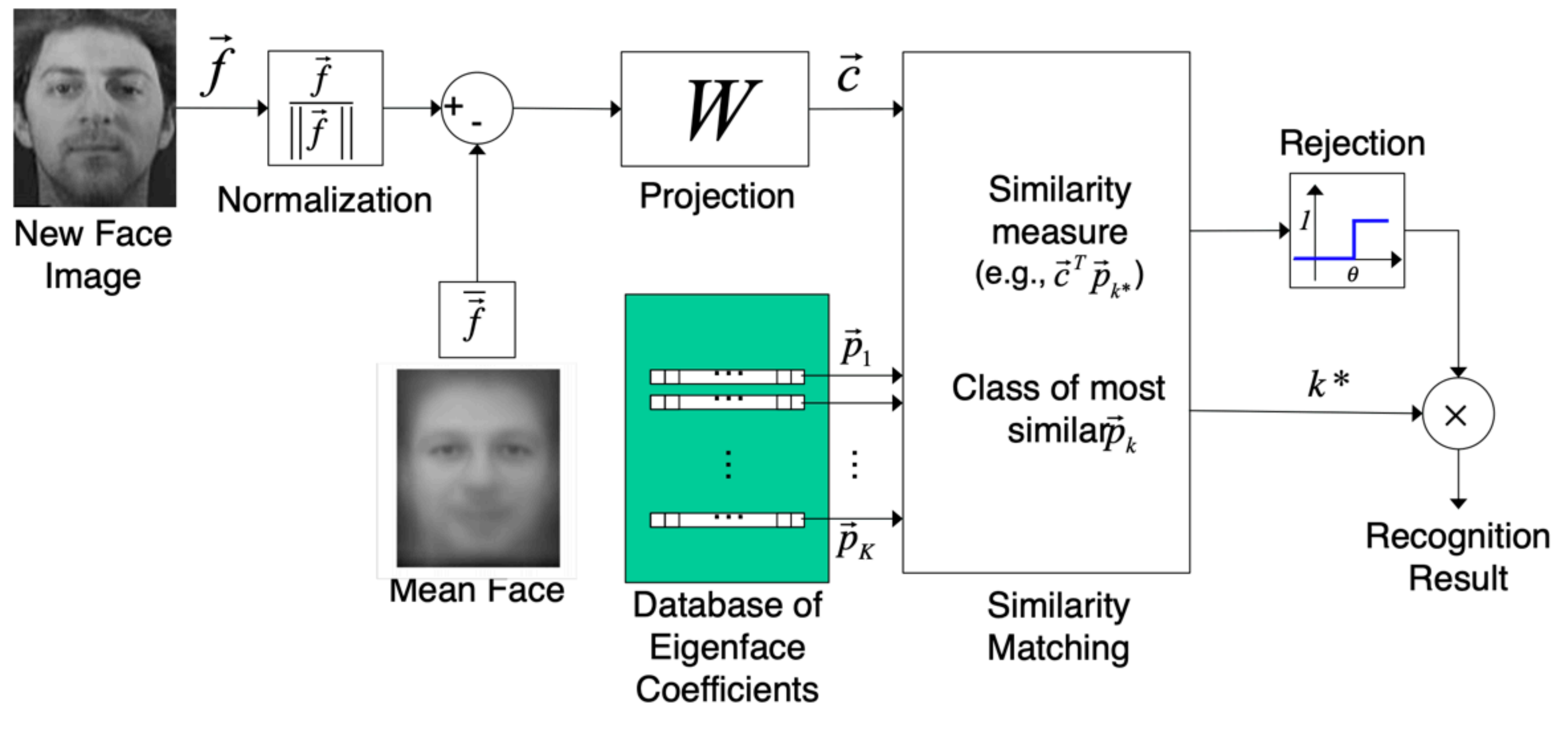
# CULTURAL CONTEXT + HISTORY OF GENERATIVE IMAGES

# EIGENIMAGES (1980 - 2010)



<https://en.wikipedia.org/wiki/Eigenface>

# Eigenimages for face recognition



[https://web.stanford.edu/class/ee368/Handouts/Lectures/2019 Winter/10-EigenImages.pdf](https://web.stanford.edu/class/ee368/Handouts/Lectures/2019%20Winter/10-EigenImages.pdf)

- The first 8 eigenfaces obtained from a training set of 100 male and 100 female training images



Mean Face



Eigenface 1



Eigenface 2



Eigenface 3



Eigenface 4



Eigenface 5



Eigenface 6



Eigenface 7



Eigenface 8

- Can be used to generate faces by adjusting 8 coefficients.
- Can be used for face recognition by nearest-neighbor search in 8-d „face space.“

[https://web.stanford.edu/class/ee368/Handouts/Lectures/2019\\_Winter/10-EigenImages.pdf](https://web.stanford.edu/class/ee368/Handouts/Lectures/2019_Winter/10-EigenImages.pdf)

# IMAGE ANALOGIES

# Image Analogies

Aaron Hertzmann<sup>1,2</sup> Charles E. Jacobs<sup>2</sup> Nuria Oliver<sup>2</sup> Brian Curless<sup>3</sup> David H. Salesin<sup>2,3</sup>

<sup>1</sup>New York University <sup>2</sup>Microsoft Research <sup>3</sup>University of Washington



**Figure 1** An image analogy. Our problem is to compute a new “analogous” image  $B'$  that relates to  $B$  in “the same way” as  $A'$  relates to  $A$ . Here,  $A$ ,  $A'$ , and  $B$  are inputs to our algorithm, and  $B'$  is the output. The full-size images are shown in Figures 10 and 11.

## Abstract

This paper describes a new framework for processing images by example, called “image analogies.” The framework involves two stages: a *design phase*, in which a pair of images, with one image purported to be a “filtered” version of the other, is presented as “training data”; and an *application phase*, in which the learned filter is applied to some new target image in order to create an “analogous” filtered result. Image analogies are based on a simple multi-scale autoregression, inspired primarily by recent results in texture synthesis. By choosing different types of source image pairs as input, the framework supports a wide variety of “image filter” effects, including *traditional image filters*, such as blurring or embossing; *improved texture synthesis*, in which some textures are synthesized with higher quality than by previous approaches; *super-resolution*, in which a higher-resolution image is inferred from a low-resolution source; *texture transfer*, in which images are “texturized” with some arbitrary source texture; *artistic filters*, in which various drawing

## 1 Introduction

**a-nal-o-gy** *n.* A systematic comparison between structures that uses properties of and relations between objects of a source structure to infer properties of and relations between objects of a target structure. [14]

*A native talent for perceiving analogies is . . . the leading fact in genius of every order.*

—William James, 1890 [28]

Analogy is a basic reasoning process, one that we as humans employ quite commonly, and often unconsciously, to solve problems, provide explanations, and make predictions [44]. In this paper, we explore the use of analogy as a means for creating complex image filters (Figure 1). In particular, we attempt to solve the following problem:

<https://mrl.cs.nyu.edu/publications/image-analogies/analogies-72dpi.pdf>





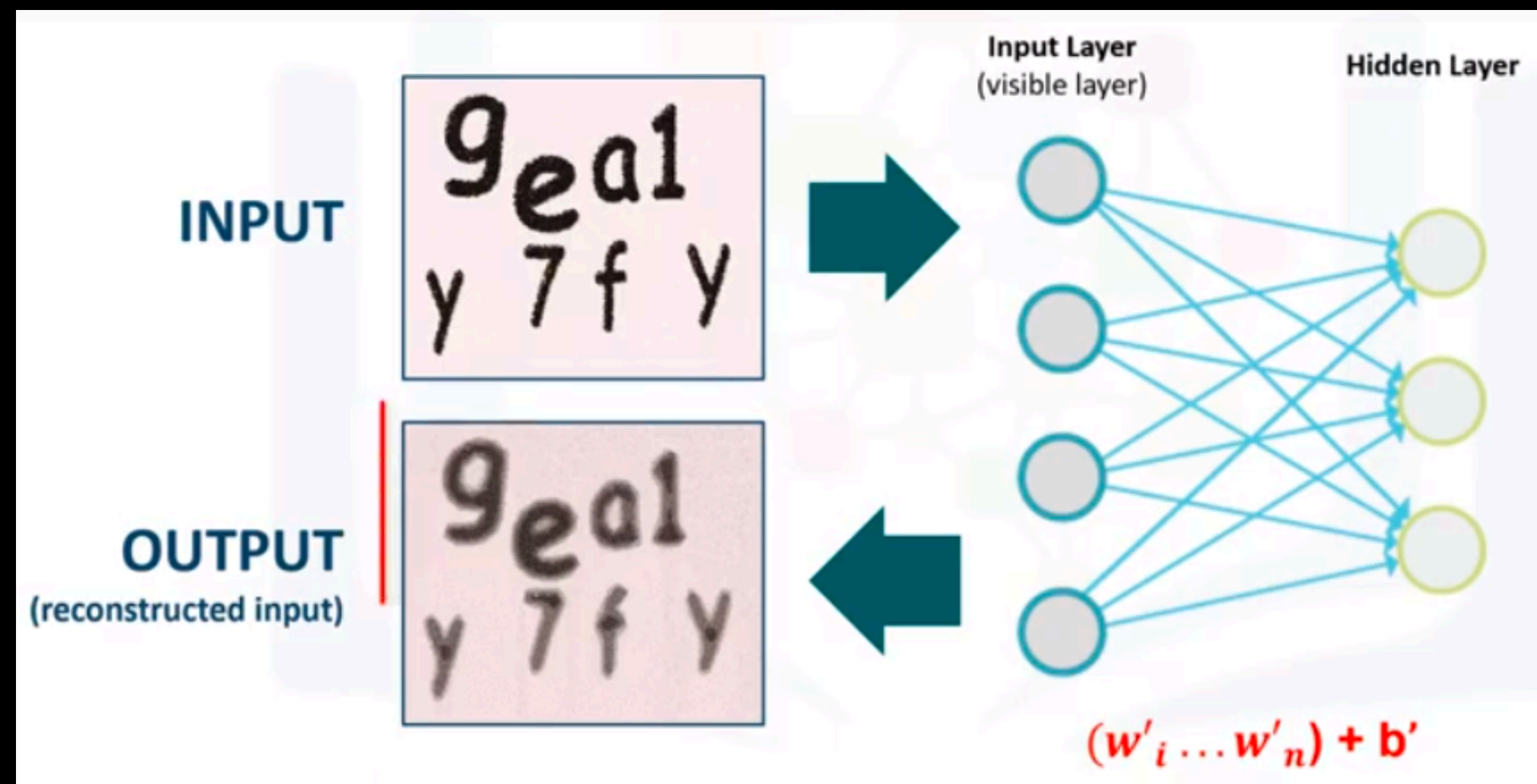
<https://pkmital.com/home/works/early-visual-synthesis-works/>

# ACTIVE APPEARANCE MODELS (1998-2010)



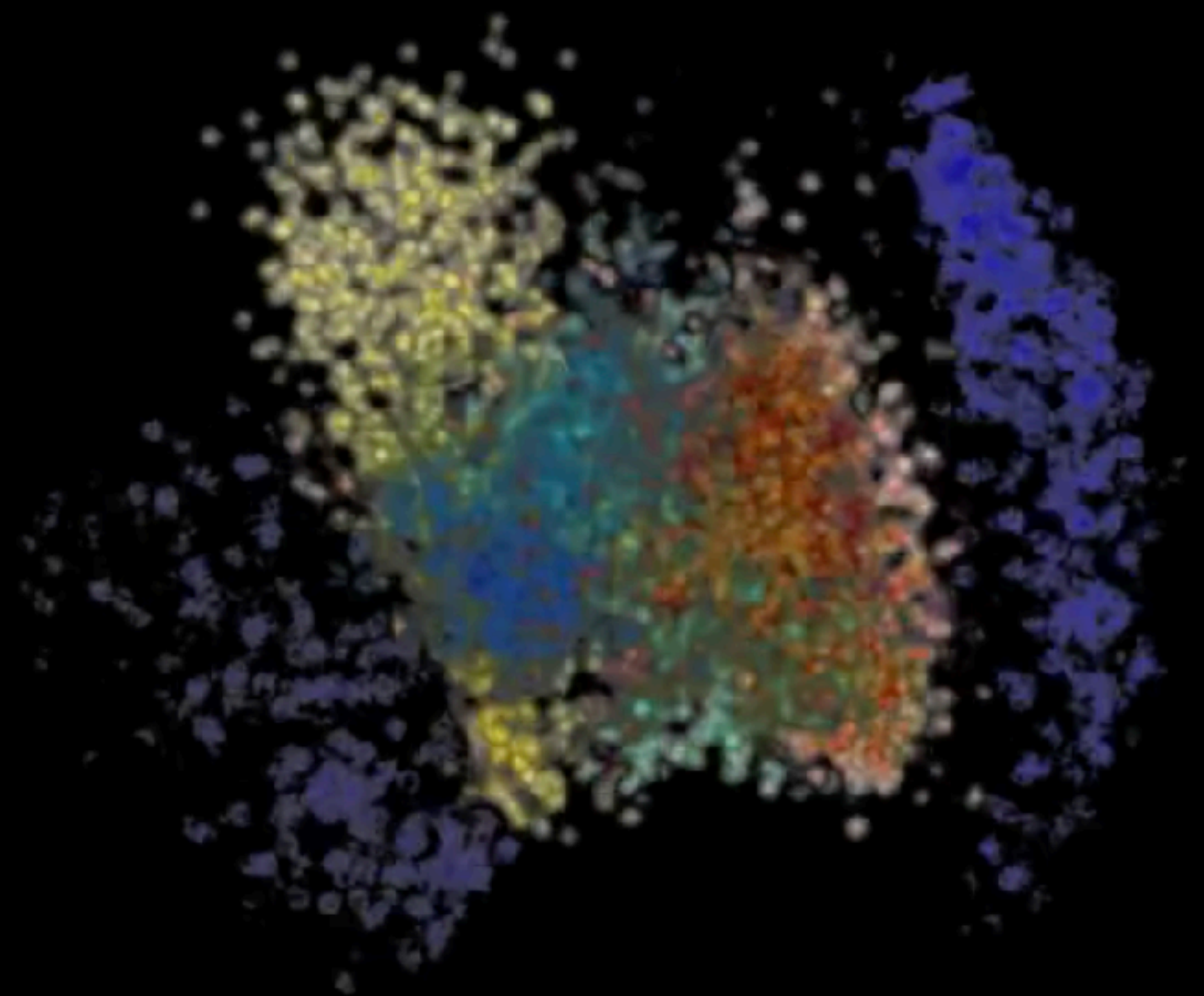
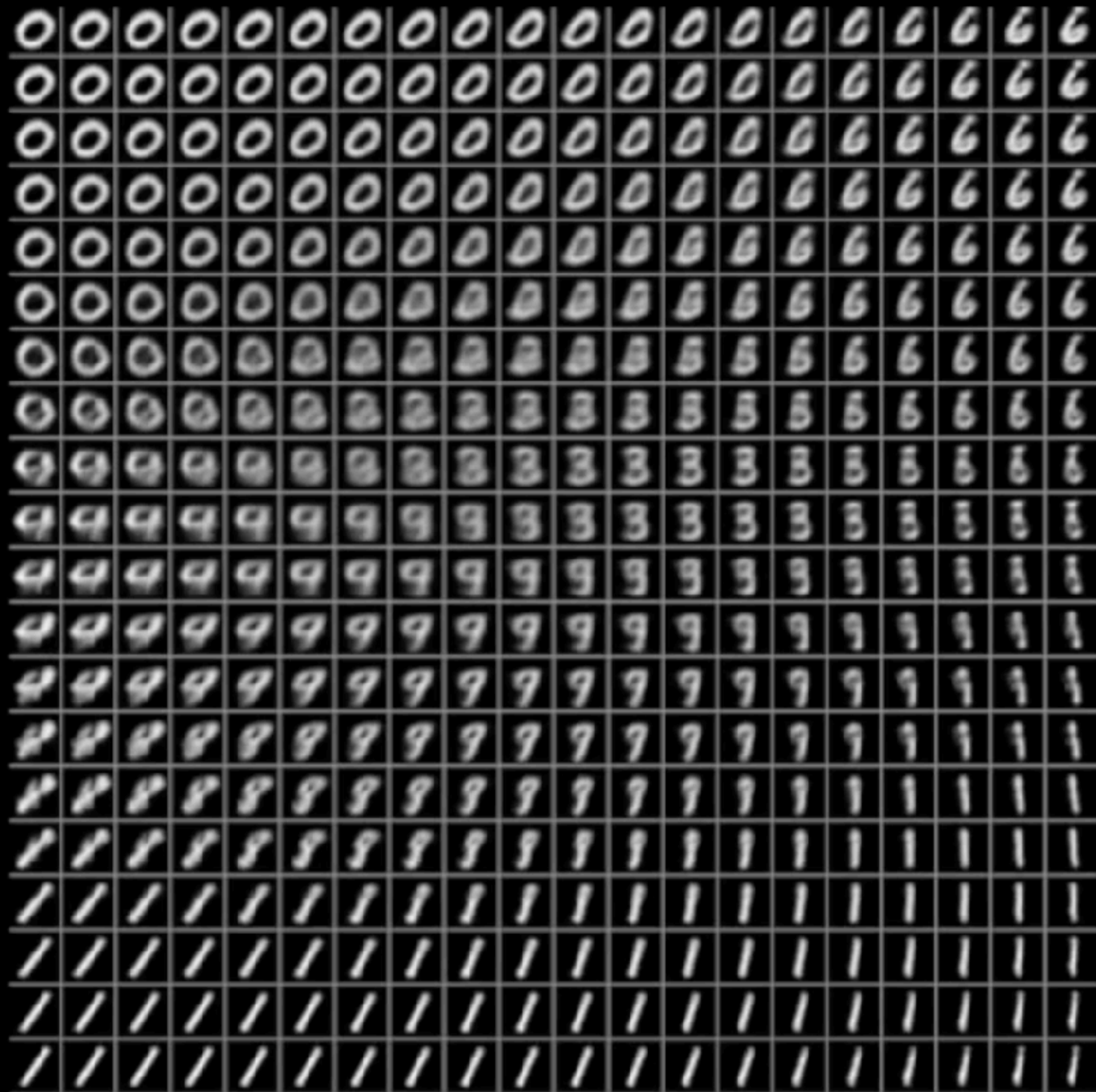
<https://vimeo.com/24409802>

RBM  
(1986, 2006-2013)



<https://medium.com/datadriveninvestor/dimensionality-reduction-and-feature-extraction-with-rbm-f499965979e9>

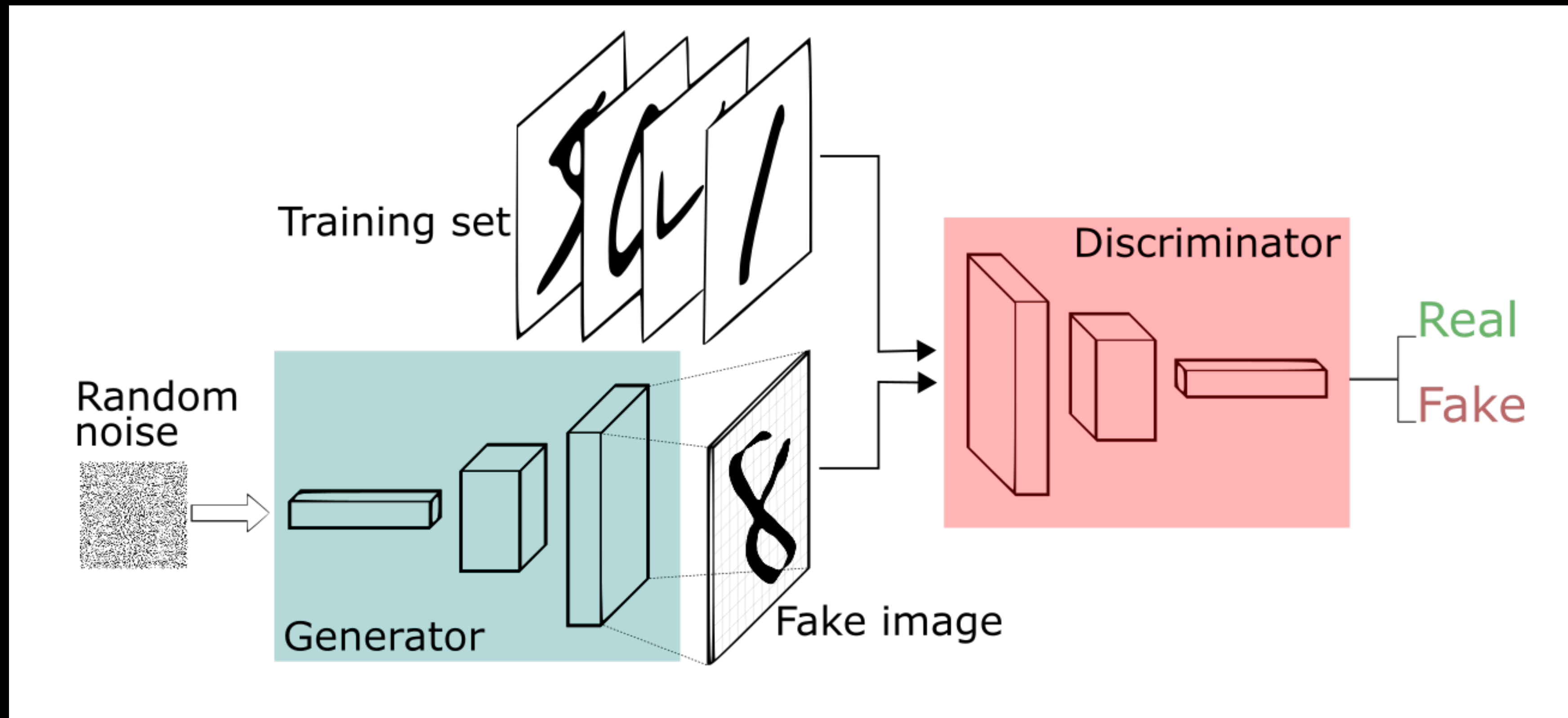
(V)AE  
(2010 - 2020)



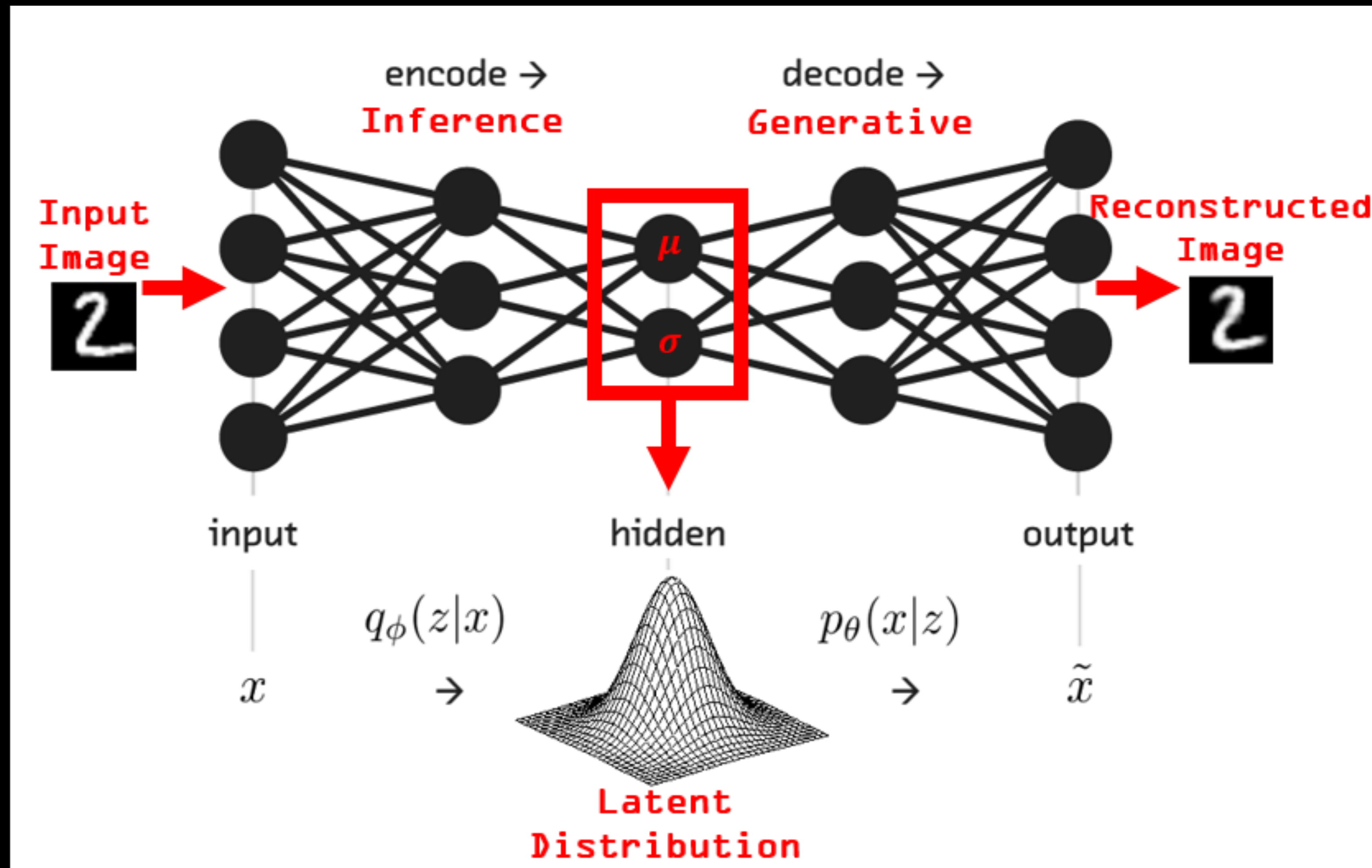
<https://vimeo.com/155061675>

# GANs (2014 - CURRENT)





<https://www.freecodecamp.org/news/an-intuitive-introduction-to-generative-adversarial-networks-gans-7a2264a81394/>



<https://idiotdeveloper.com/wp-content/uploads/2020/05/variational-autoencoder.png>

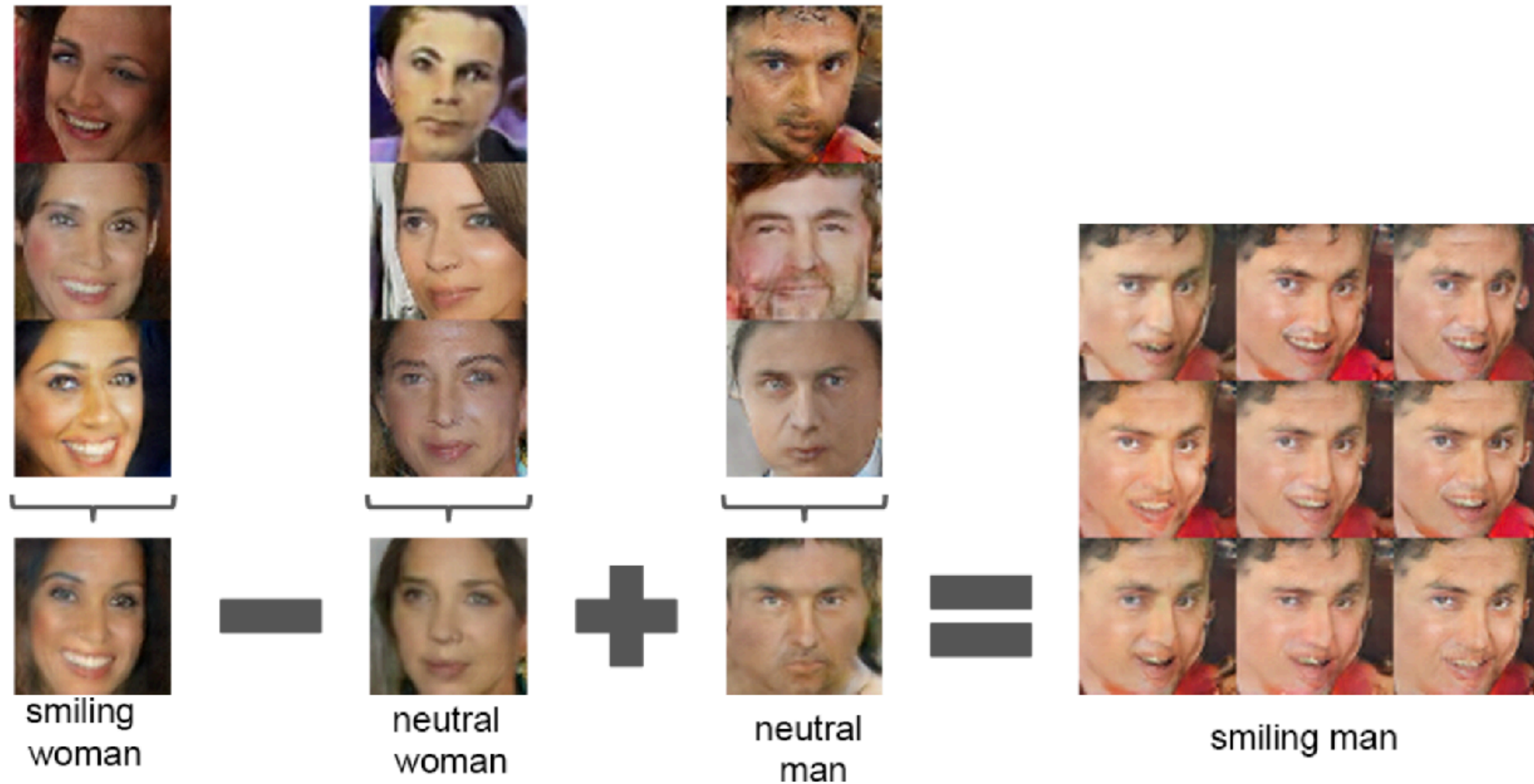


[https://github.com/Neemu/dcgan\\_code](https://github.com/Neemu/dcgan_code)



[https://github.com/Neumu/dcgan\\_code](https://github.com/Neumu/dcgan_code)

# Arithmetic on faces



[https://github.com/Newmu/dcgan\\_code](https://github.com/Newmu/dcgan_code)

# Image-to-Image Translation with Conditional Adversarial Nets

Phillip Isola

Jun-Yan Zhu

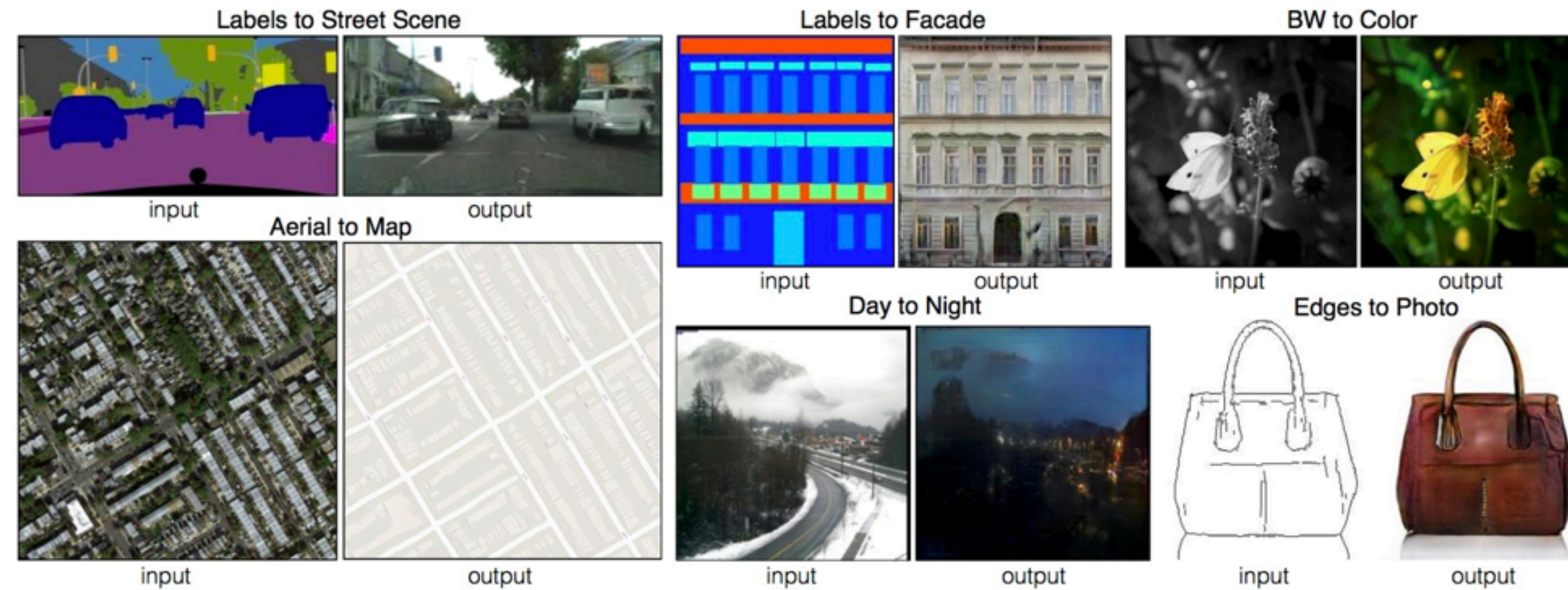
Tinghui Zhou

Alexei A. Efros

University of California, Berkeley  
In CVPR 2017

[Paper]

[GitHub]



Example results on several image-to-image translation problems. In each case we use the same architecture and objective, simply training on different data.

## Abstract

We investigate conditional adversarial networks as a general-purpose solution to image-to-image translation problems. These networks not only learn the mapping from input image to output image, but also learn a loss function to train this mapping. This makes it possible to apply the same generic approach to problems that traditionally would require very different loss formulations. We demonstrate that this approach is effective at synthesizing photos from label maps, reconstructing objects from edge maps, and colorizing images, among other tasks. As a community, we no longer hand-engineer our mapping functions, and this work suggests we can achieve reasonable results without hand-engineering our loss functions either.

<https://phillipi.github.io/pix2pix/>

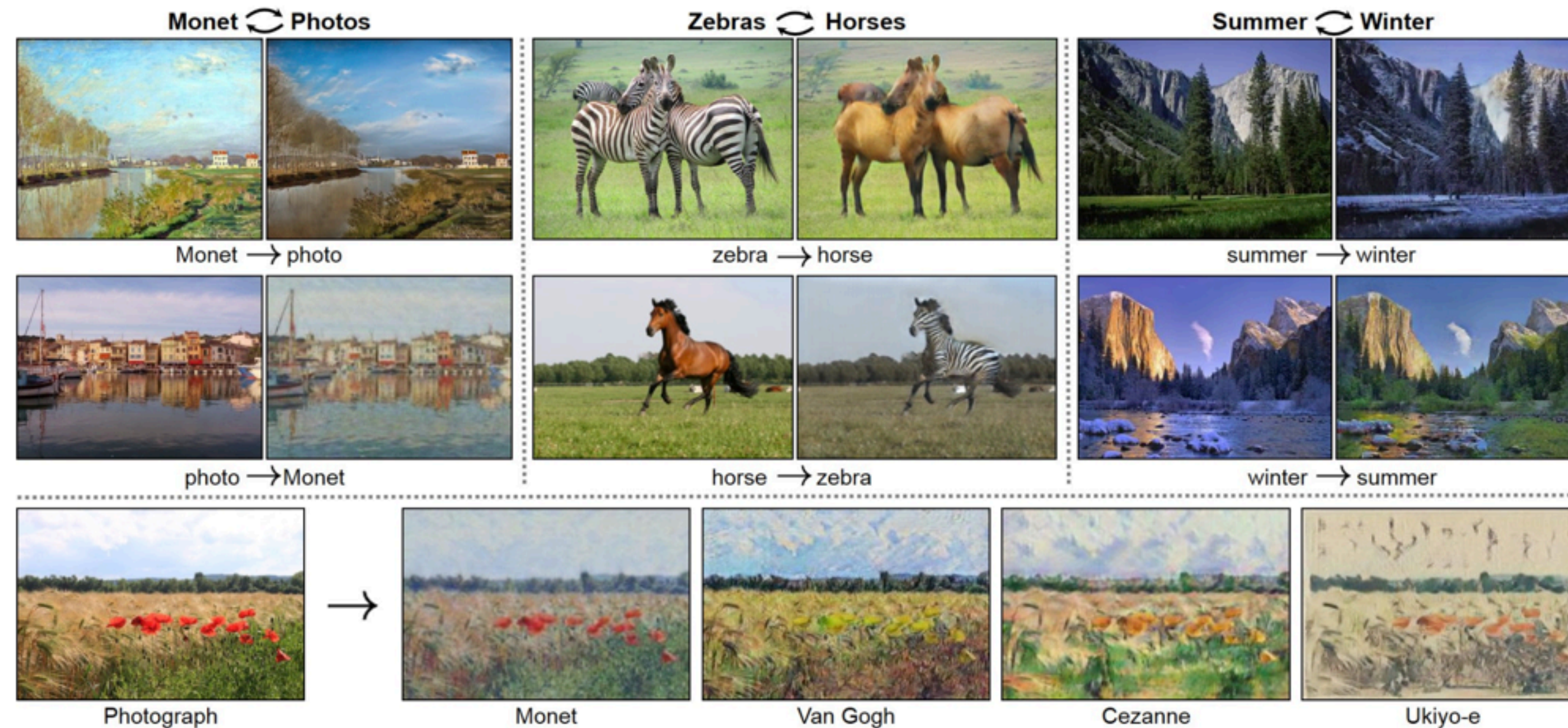
# Unpaired Image-to-Image Translation using Cycle-Consistent Adversarial Networks

Jun-Yan Zhu\* Taesung Park\* Phillip Isola Alexei A. Efros

UC Berkeley

In ICCV 2017

[Paper](#) | [PyTorch code](#) | [Torch code](#)



## Abstract

Image-to-image translation is a class of vision and graphics problems where the goal is to learn the mapping between an input image and an output image using a training set of aligned image pairs. However, for many tasks, paired training data will not be available. We present an approach for learning to translate an image from a source domain  $X$  to a target domain  $Y$  in the absence of paired examples. Our goal is to learn a mapping  $G: X \rightarrow Y$ , such that the distribution of images from  $G(X)$  is indistinguishable from the distribution  $Y$  using an adversarial loss. Because this mapping is highly under-constrained, we couple it with an inverse mapping  $F: Y \rightarrow X$  and introduce a cycle consistency loss to push  $F(G(X)) \approx X$  (and vice versa). Qualitative results are presented on several tasks where paired training data does not exist, including collection style transfer, object transfiguration, season transfer, photo enhancement, etc. Quantitative comparisons against several prior methods demonstrate the superiority of our approach.

<https://junyanz.github.io/CycleGAN/>

## Flickr-Faces-HQ Dataset (FFHQ)

python 3.6 license CC format PNG resolution 1024×1024 images 70,000



Flickr-Faces-HQ (FFHQ) is a high-quality image dataset of human faces, originally created as a benchmark for generative adversarial networks (GAN):

### A Style-Based Generator Architecture for Generative Adversarial Networks

Tero Karras (NVIDIA), Samuli Laine (NVIDIA), Timo Aila (NVIDIA)

<https://arxiv.org/abs/1812.04948>

The dataset consists of 70,000 high-quality PNG images at 1024×1024 resolution and contains considerable variation in terms of age, ethnicity and image background. It also has good coverage of accessories such as eyeglasses, sunglasses, hats, etc. The images were crawled from [Flickr](#), thus inheriting all the biases of that website, and automatically aligned and cropped using [dlib](#). Only images under permissive licenses were collected. Various automatic filters were used to prune the set, and finally [Amazon Mechanical Turk](#) was used to remove the occasional statues, paintings, or photos of photos.

For business inquiries, please contact [researchinquiries@nvidia.com](mailto:researchinquiries@nvidia.com)

For press and other inquiries, please contact Hector Martinez at [hmarinez@nvidia.com](mailto:hmarinez@nvidia.com)

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



## StyleGAN — Official TensorFlow Implementation

python 3.6 tensorflow 1.10 cudnn 7.3.1 license CC BY-NC



Picture: These people are not real – they were produced by our generator that allows control over different aspects of the image.

This repository contains the official TensorFlow implementation of the following paper:

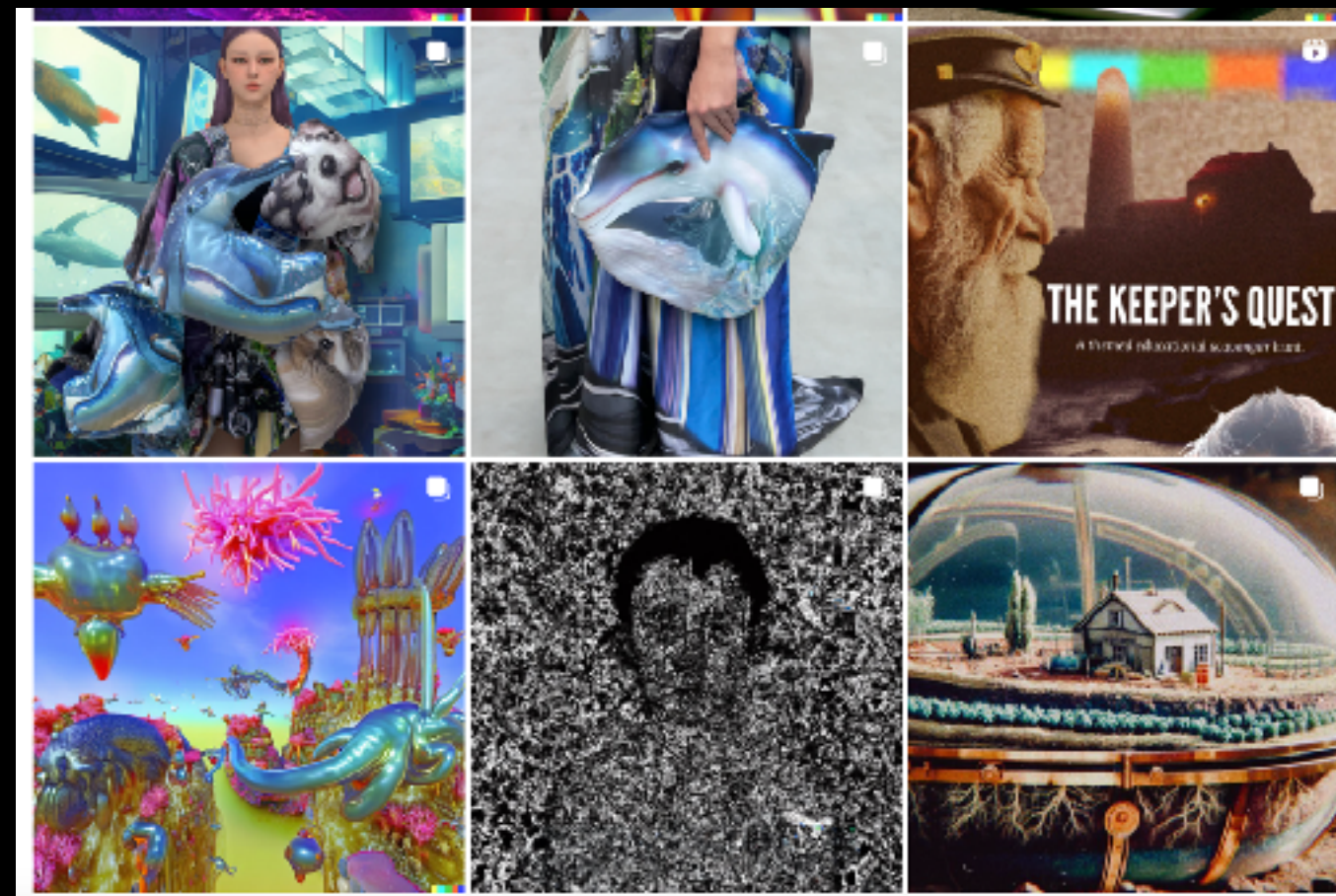
**A Style-Based Generator Architecture for Generative Adversarial Networks**

Tero Karras (NVIDIA), Samuli Laine (NVIDIA), Timo Aila (NVIDIA)

<https://arxiv.org/abs/1812.04948>

<https://github.com/NVLabs/stylegan>

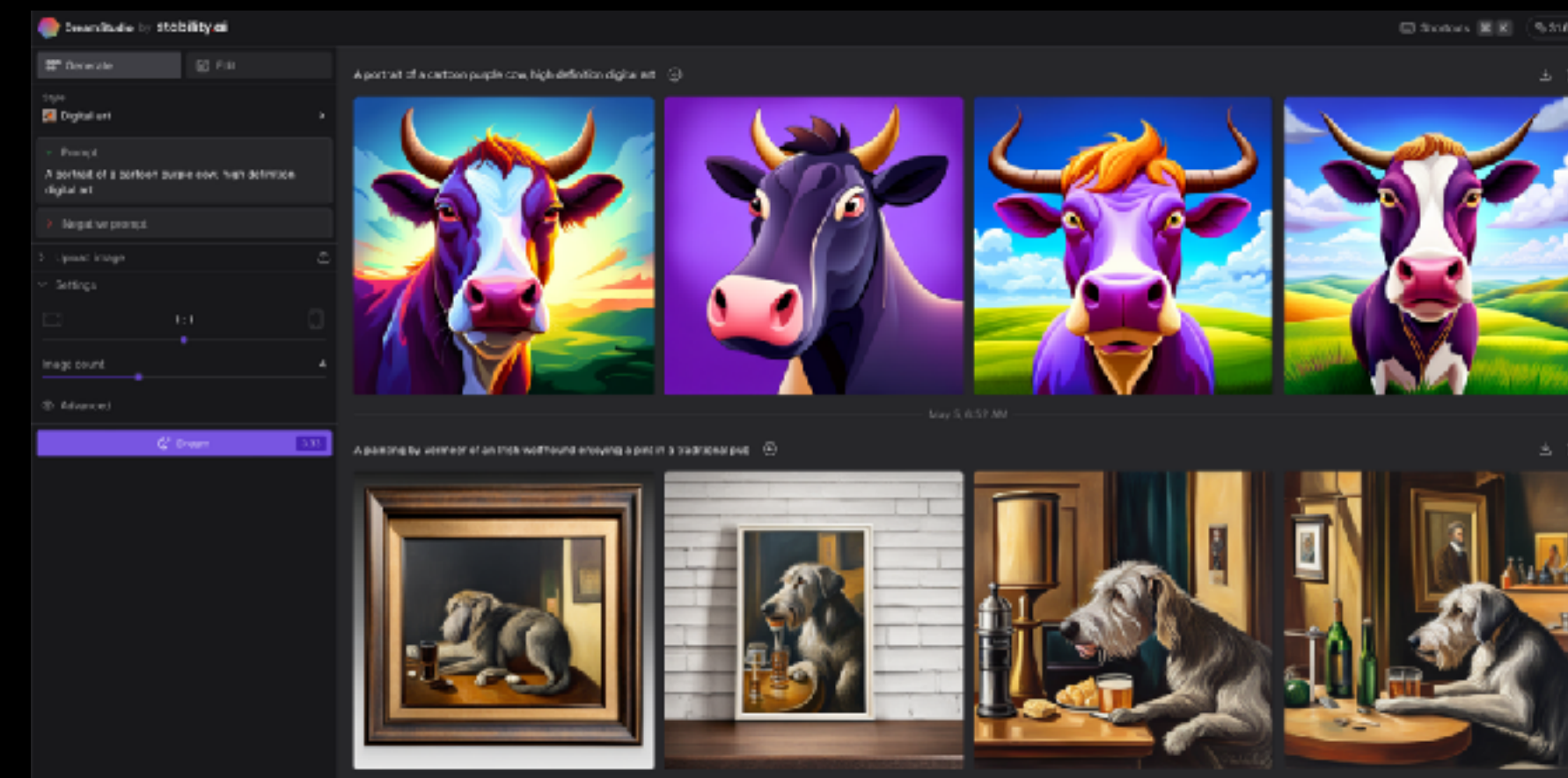
# DIFFUSION MODELS



*Dall-E2*

<https://openai.com/dall-e-2>

<https://www.instagram.com/openaidalle/>



*Stable Diffusion*

<https://stablediffusionweb.com/>



A brain riding a rocketship heading towards the moon.

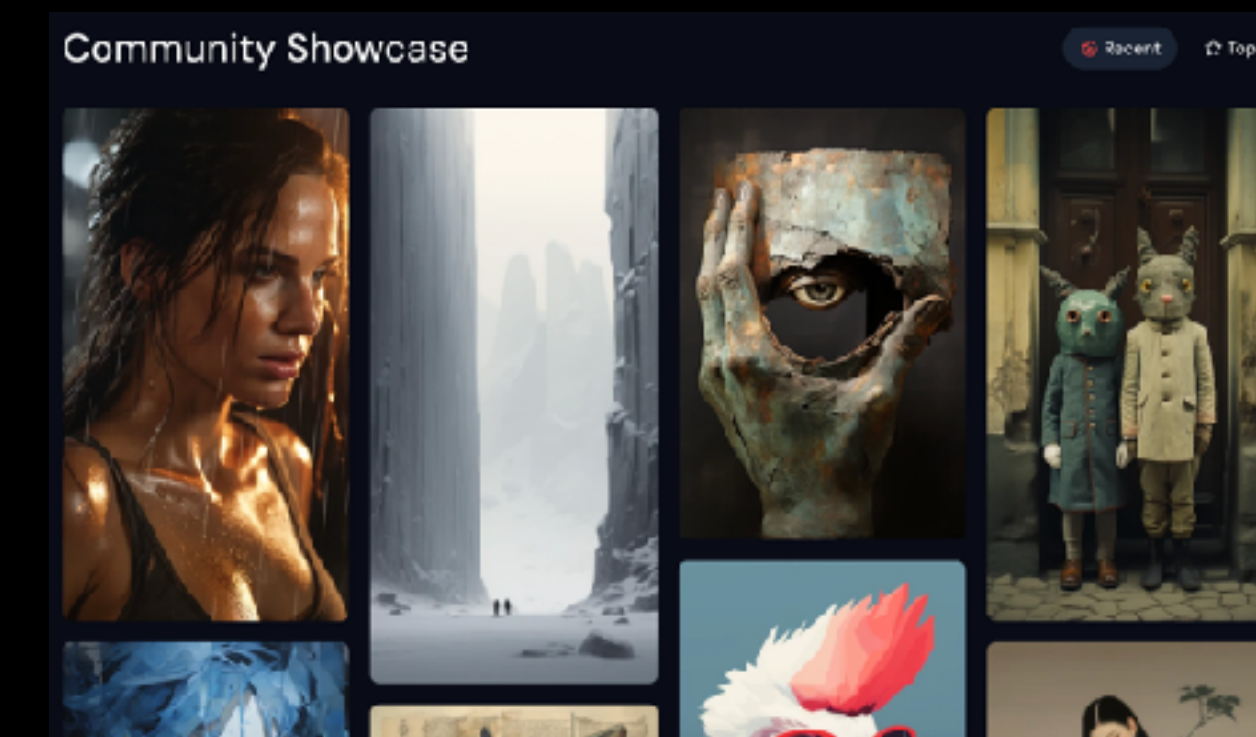
A robot couple fine dining with Eiffel Tower in the background.

A small cactus wearing a straw hat and neon sunglasses in the Sahara desert.

A cute corgi lives in a house made out of sushi.

*Imagen (by Google)*

<https://imagen.research.google/>



*Midjourney*

<https://www.midjourney.com/home/?>

[callbackUrl=%2Fapp%2F](https://www.midjourney.com/home/?callbackUrl=%2Fapp%2F)



<https://analyticsindiamag.com/youll-never-have-to-see-another-boring-qr-code-again/>



<https://huggingface.co/spaces/AP123/IllusionDiffusion>

# ARTISTS EXPLORING GANS

<https://mlart.co/>

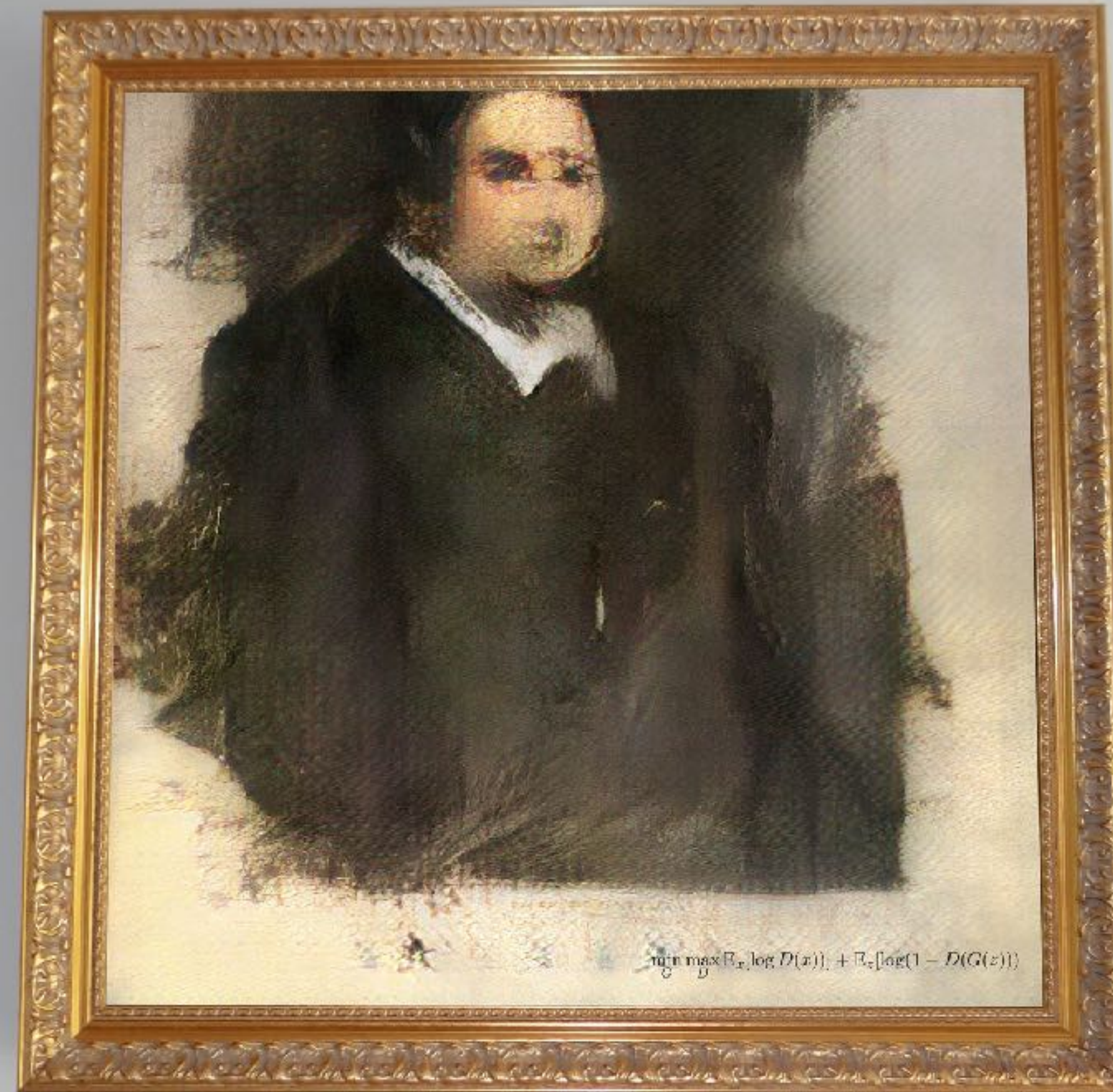


<https://pkmital.com/home/works/early-visual-synthesis-works/>

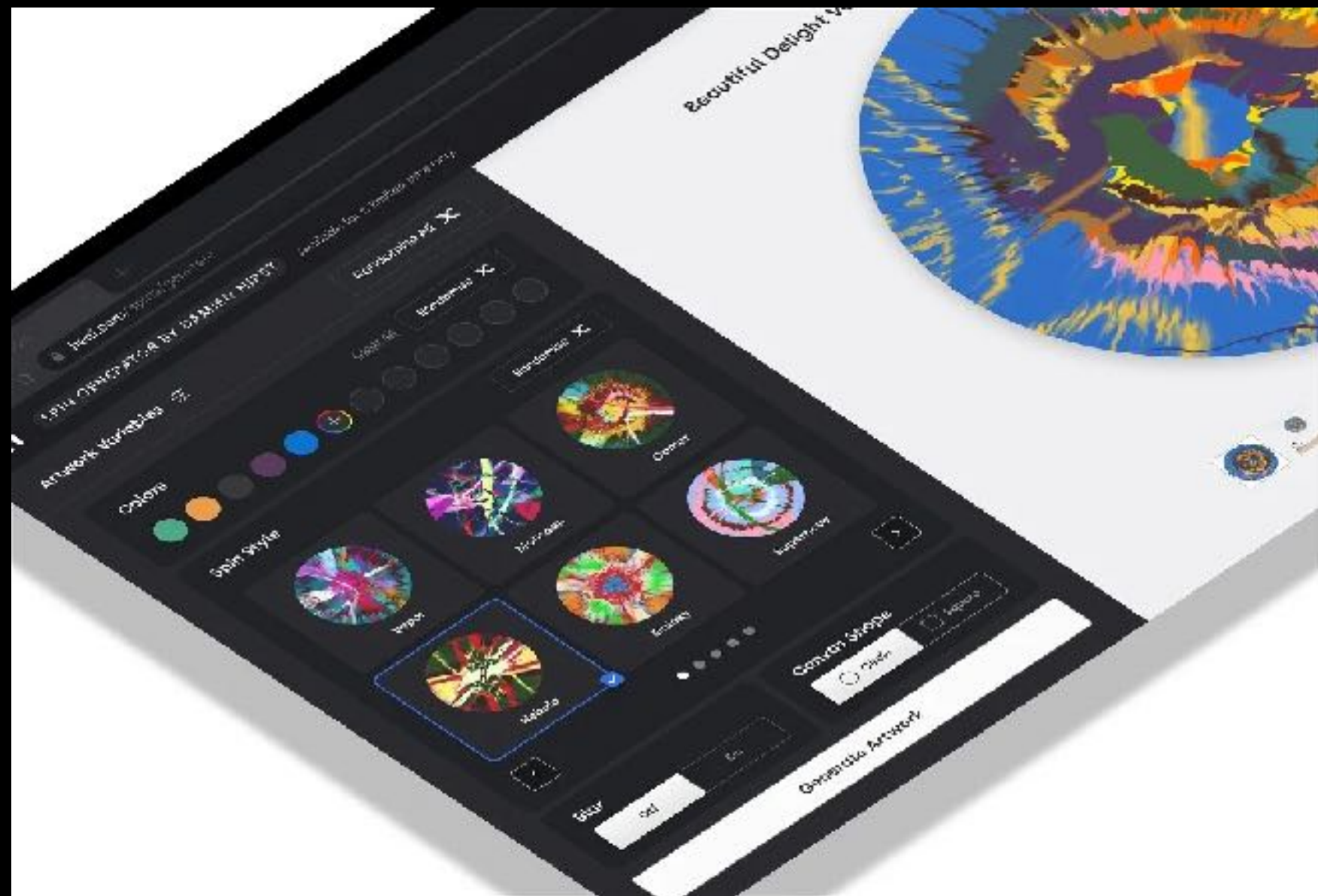


<https://underdestruction.com/2018/12/29/memories-of-passersby-i/>





*“Edmond de Bellamy” 2018*



<https://heni.com/spins>

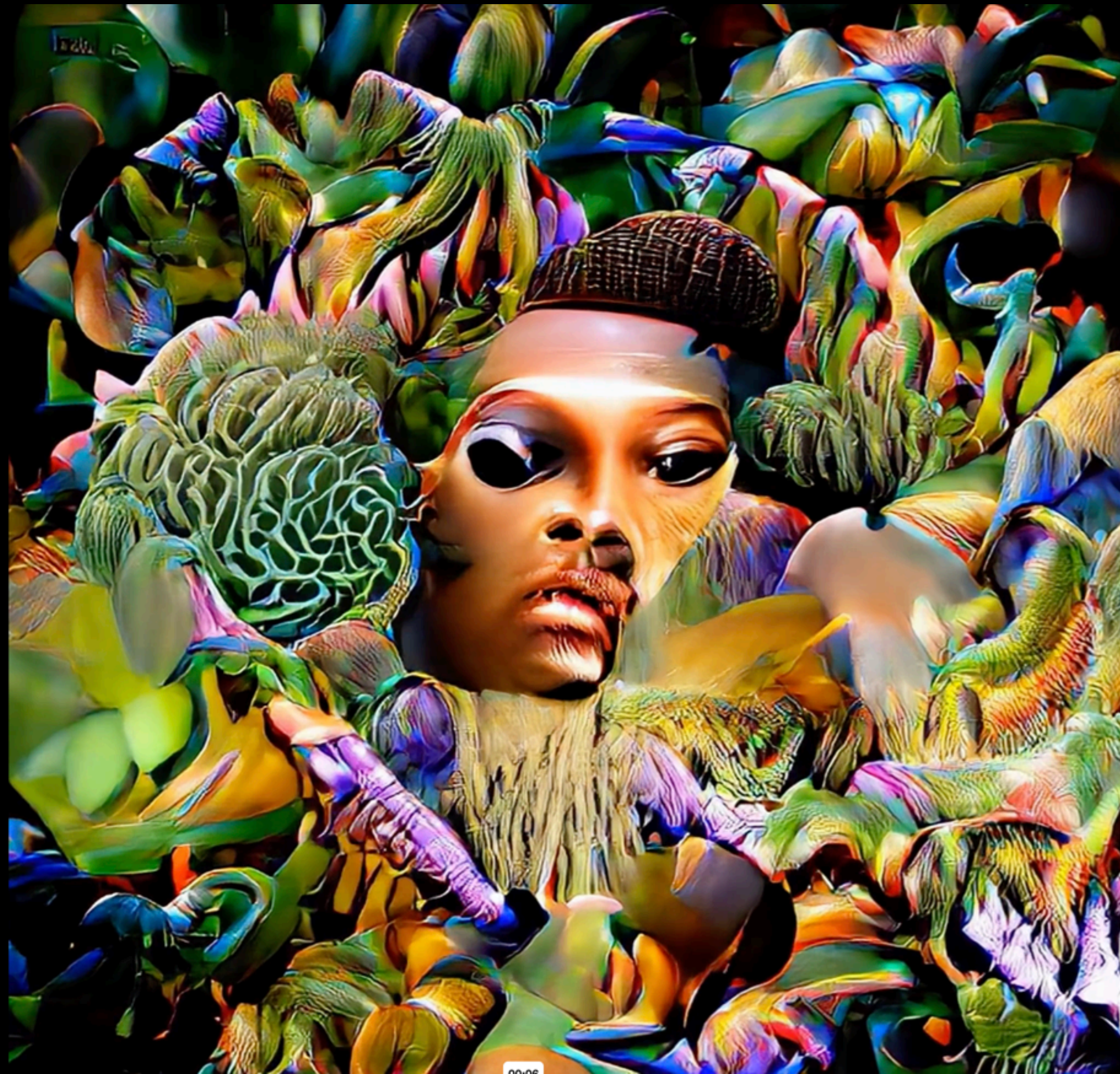


**Jon Rafman**  
*Counterfeit Poast, 2022*

<https://spruethmagers.com/artists/jon-rafman/>



<https://www.jakeelwes.com/project-zizimotion.html>

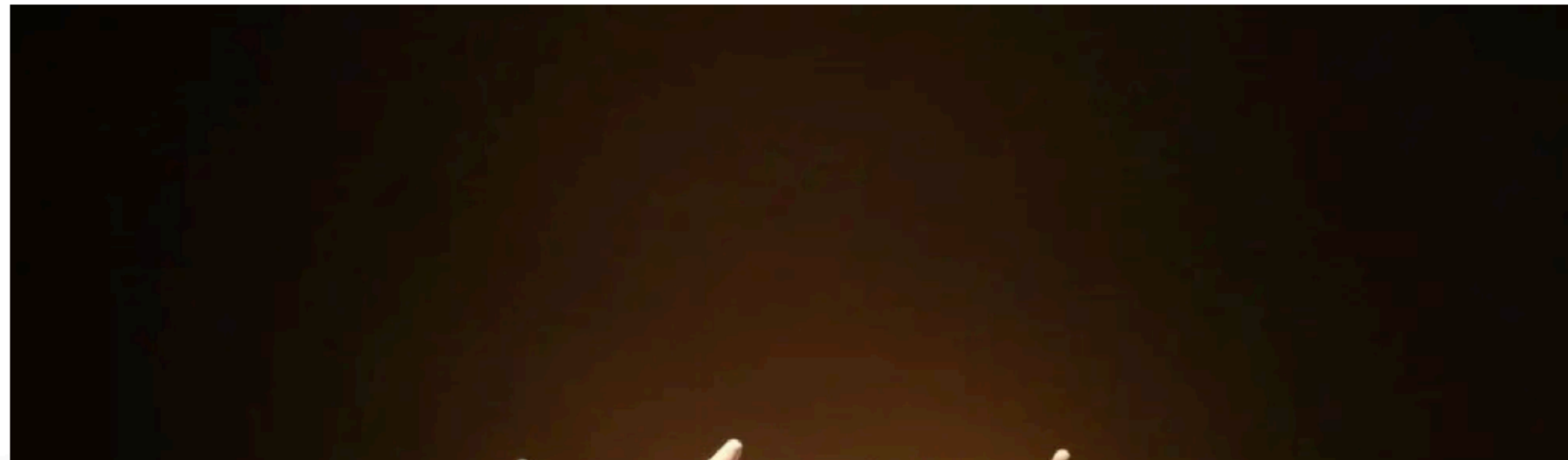


<https://vimeo.com/689052977>



<https://breannabrowning.com/>

**We are documenting the first decades of artists who create work with software and for the internet.** From 16mm films made with code to CD-ROMs to websites, from the 1960s to the present, artists have explored and have defined a new medium for the visual arts. We are collecting information to be shared with artists, curators, and scholars, and we hope this resource will be useful in the present and far into the future.



<https://mirrorarchive.net/about>

# LAB



# UPRES AI

Hugging Face Search models, datasets, users... Models Datasets Spaces Docs Solutions Pricing Log In Sign Up


stabilityai/stable-diffusion-x4-upscaler like 490

Diffusers StableDiffusionUpscalePipeline stable-diffusion arxiv:2112.10752 arxiv:2202.00512 arxiv:1910.09700 License: openrail++

Model card Files and versions Community 24 Use in Diffusers

### Stable Diffusion x4 upscaler model card

This model card focuses on the model associated with the Stable Diffusion Upscaler, available [here](#). This model is trained for 1.25M steps on a 10M subset of LAION containing images >2048x2048. The model was trained on crops of size 512x512 and is a text-guided [latent upscaling diffusion model](#). In addition to the textual input, it receives a noise\_level as an input parameter, which can be used to add noise to the low-resolution input according to a [predefined diffusion schedule](#).



Downloads last month 67,148

Hosted inference API Inference API has been turned off for this model.

Spaces using stabilityai/stable-diffusion-x4-upscaler 27

- declare-lab/tango
- Manjushri/SD-2X-And-4X-CPU
- sagarkarn/text2image
- lucaspedrajas/IF
- ankitinter9/my-draw-self-journey
- AstraOS/IF
- Shawt/IF
- DeepFloyd/IF
- xnetba/text2image
- ysharma/Effectively\_Using\_IF
- BongoCaat/ArtGenerator
- coding-alt/IF
- Androidonnxfork/CivitAi-to-Diffusers
- fvenne/test
- sausheong/stable-diffusion-2
- robin025/Genie

<https://huggingface.co/stabilityai/stable-diffusion-x4-upscaler>



<https://www.topazlabs.com/>

Home > Tools > Free Online Image Upscaler

# Free Online Image Upscaler

Enhance, denoise, and upscale image to 4K with AI in seconds.  
Enlarge image with no quality loss.

Upload image

Or drag & drop your file here

No image? Try these for a quick start.




<https://www.capcut.com/tools/ai-image-upscaler>

TEXT TO IMAGE  
IMAGE TO IMAGE

Midjourney Public

newbies-1 Bot room for new users.

Midjourney Bot BOT  
vibrant california poppies



U1 U2 U3 U4  
V1 V2 V3 V4

user #1010

Message #newbies-1

TEAM  
DavidH

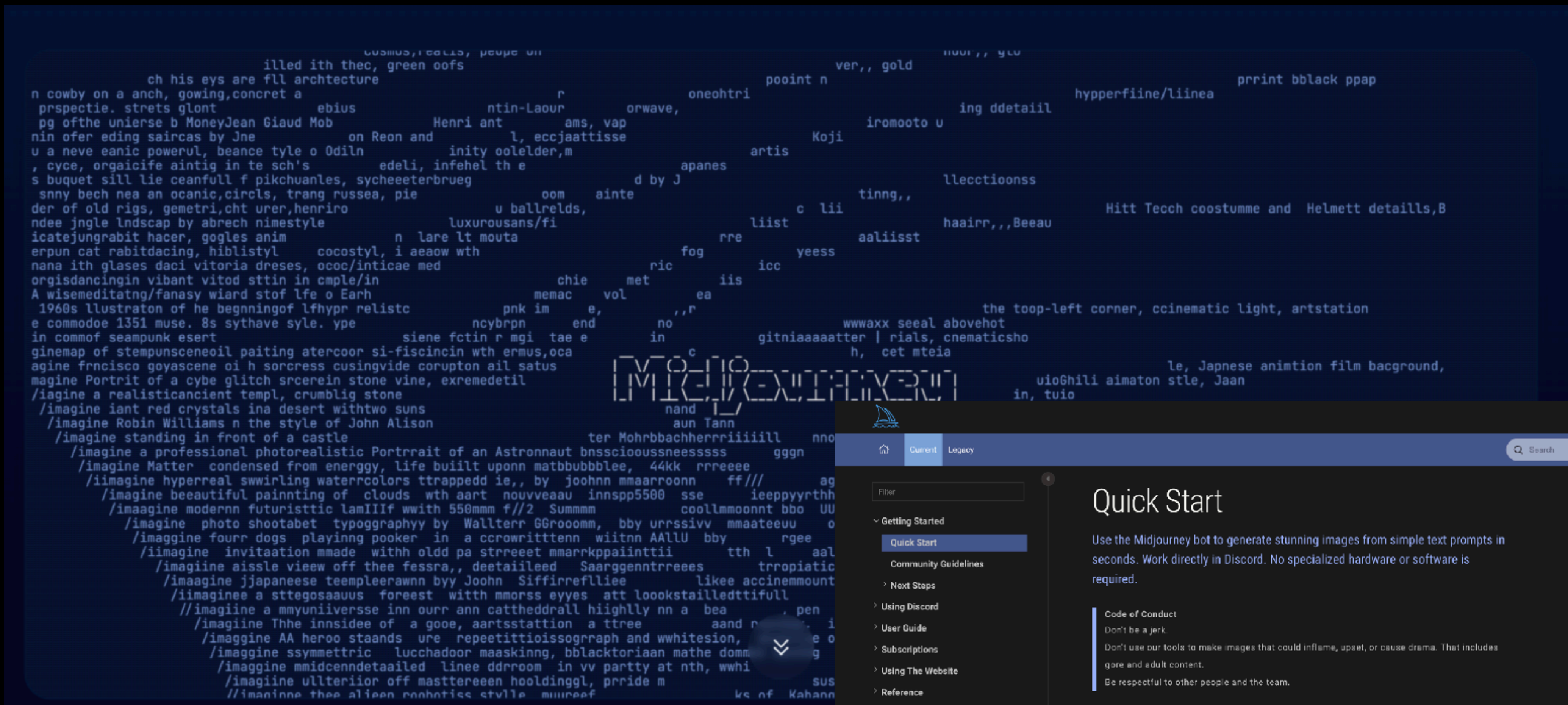
MIDJOURNEY BOT  
Midjourney Bot BOT

CHARON THE ALL KNOWING  
Charon the FAQ Bot BOT

MODERATOR  
Moderator

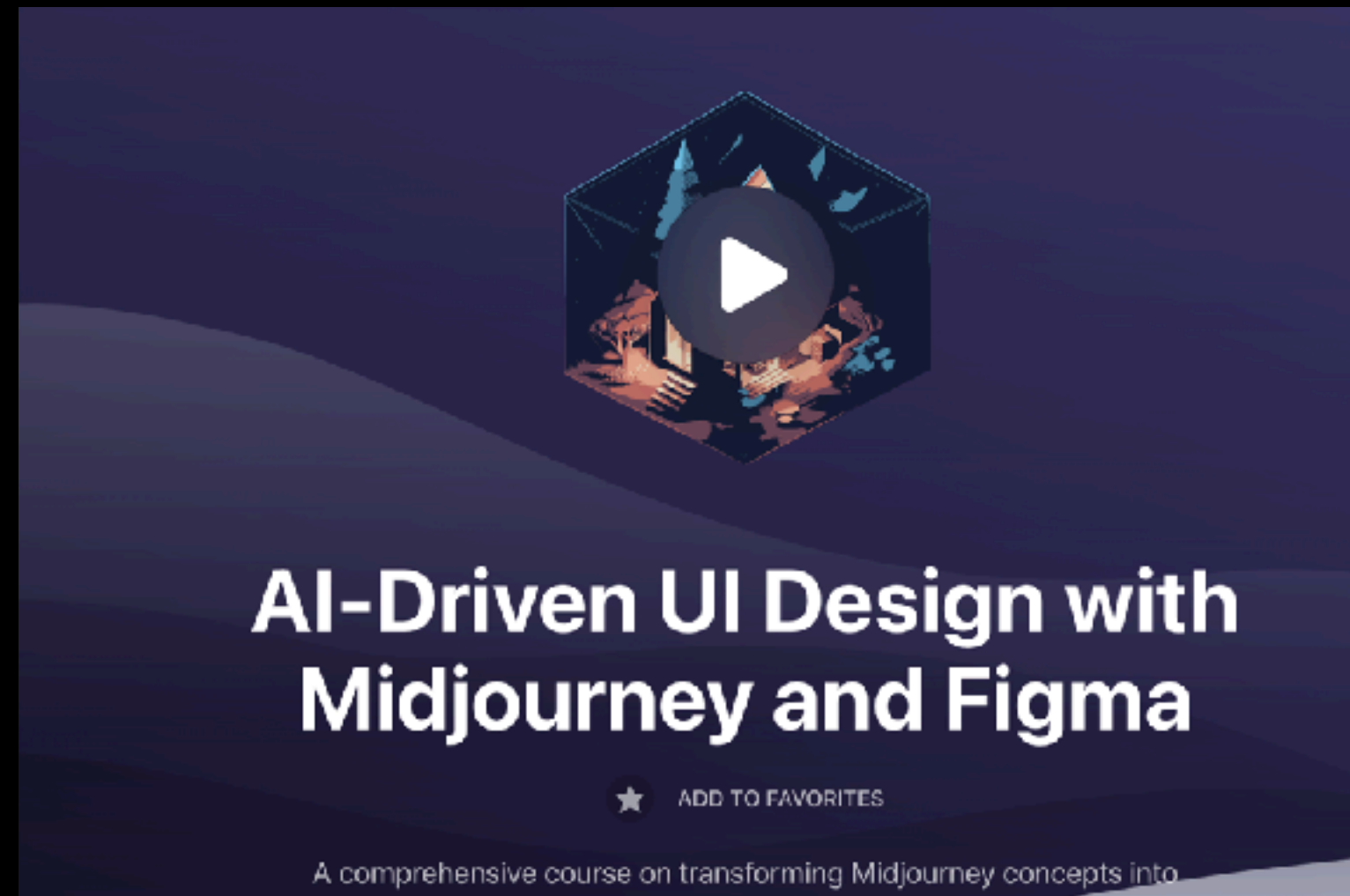
GUIDE  
Guide

<https://www.midjourney.com/home/>

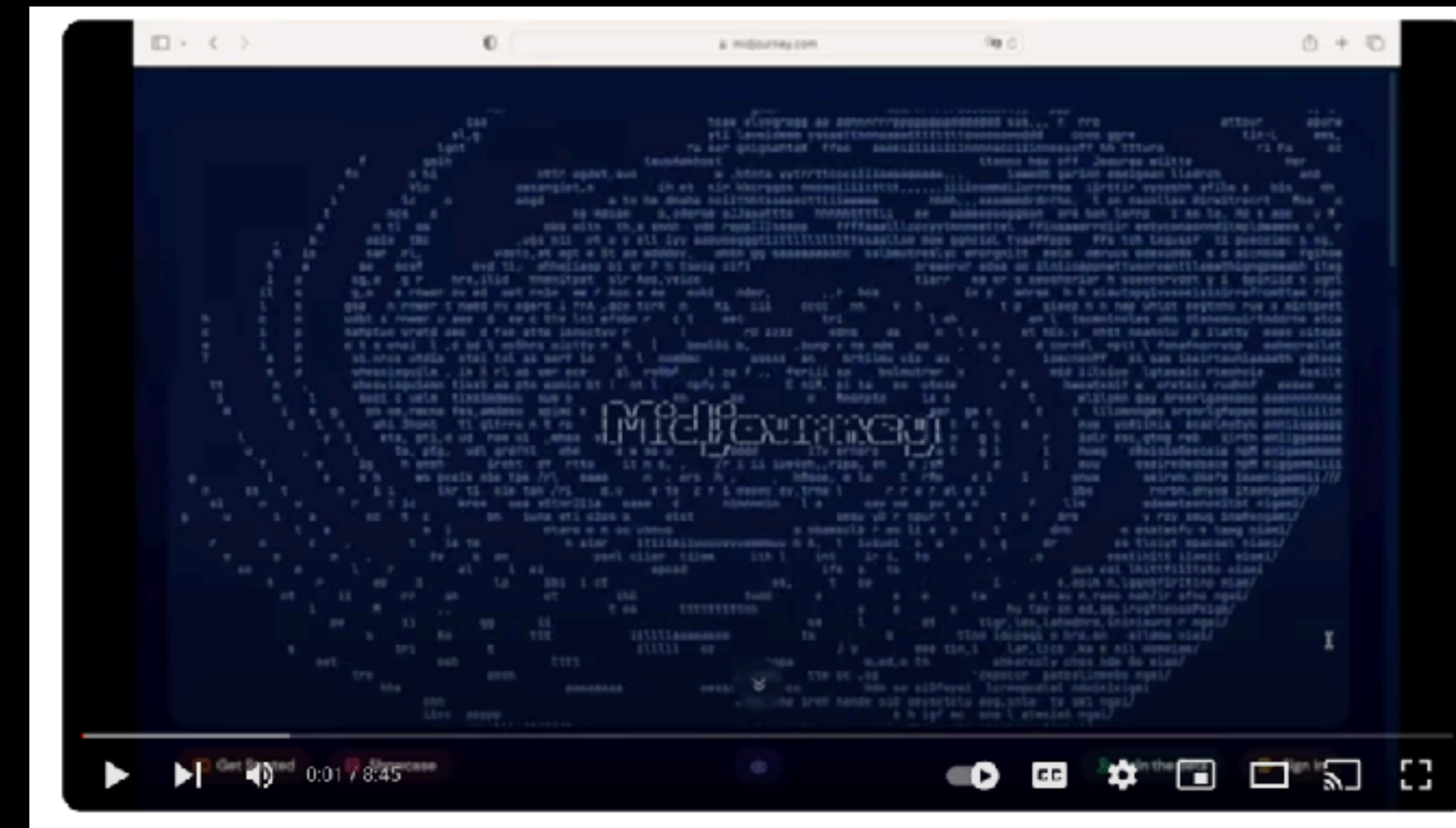


<https://www.midjourney.com/home/>

<https://docs.midjourney.com/docs/quick-start>



<https://designcode.io/midjourney-apps>



<https://www.youtube.com/watch?v=0-4eVgEB26M>

## UI Design using Midjourney

Nick Babich · Follow  
Published in UX Planet · 9 min read · Feb 27

👍 2.3k    💬 26

Text-to-image AI tools like Midjourney, Dalle-2, and Stable Diffusion can generate images from plain text. These days the internet is full of AI-generated images, but the question is, "Can text-to-image tools can be used for UI design?"

In this article, we will see how AI tools can deal with regular UI tasks such as creating:

- UI screens


<https://uxplanet.org/ui-design-using-midjourney-713e8d1b6a6b>



- Providing keywords — 'style'
- stylize
- chaos
- Resolution
- Aspect ratio
- Passing an image as a prompt as URL
- Applying weights to the image prompts
- Weights to the word prompts
- Filtering out words



<https://medium.com/mlearning-ai/an-advanced-guide-to-writing-prompts-for-midjourney-text-to-image-aa12a1e33b6>


Allar Haltsonen   
@bubblez\_jazzy


## 10 Cinematic Midjourney Prompts VOL2.


Bookmark for future use. 

*Here is a list of cinematic Midjourney prompts. Feel free to copy & paste, and change or remove parts of the topic as needed.*

*Happy testing!*

 Prompt: Cinematic Crane Shot, The sun setting over the scenic coastline of Malibu, a luxury convertible cruising along the Pacific Coast Highway, capturing the carefree and glamorous LA lifestyle, as if through the lens of a vintage Panavision camera --style raw --ar 21:9 --c 10

 Prompt: A ransom drop-off in dirty LA backstreets, gritty surroundings, neon lights clash with the stark, moonless night, mimicking the suspense of Tarantino's plots. Captured on lustrous Kodak Vision3 Color Negative Film 500T 5219 --style raw --ar 21:9

 Prompt: Ultra Panavision 70, Action scene in 1970 Los Angeles, muscle car chase, at day time, shot on warm-toned Eastman Kodak film

[https://twitter.com/bubblez\\_jazzy/status/1698255033991565655?s=46&t=MHjSXuuPGHmWLD4It3ZkFA](https://twitter.com/bubblez_jazzy/status/1698255033991565655?s=46&t=MHjSXuuPGHmWLD4It3ZkFA)

Chase Lean   
@chaseleantj

Seems like the X algorithm was weird lately, and few people saw my previous post.

It's better now, so I'm updating the post and sharing it again.

Previously I showed you guys how to make vector illustrations w Midjourney.

Prompt:

png white background, [subject], in the style of animated illustration [environment], full body, text-based --style raw --stylize 100

Here's a neat trick to control the detail level of the images:

Change the "stylize" value at the end of the prompt.

The default value is 100.

If you prefer flatter images with less detail, use a low value like 0

If you like more artistic images, use a high value like 500.

It's an easy way to customize the images for your project or presentation.

--stylize 0



--stylize 100



--stylize 250



--stylize 500



<https://twitter.com/chaseleantj/status/1697946877772394775?s=46&t=MHjSXuuPGHmWLD4It3ZkFA>

/Imagine png white background, a little family of kittens, in the style of animated illustrations, in a forest, full body, text-based --style raw --stylize (x)

stylize 0



stylize 100



stylize 500



`/imagine Cinematic Crane Shot, The sun setting over the scenic coastline of Malibu, a group of 3 motorcycles driving down the Pacific Coast Highway, as if through the lens of a vintage Panavision camera --style raw --ar 21:9 --c 10`



`/imagine` Close Up shot, cinematic scene of a trendy female profile, at an old New York Hotel, as if shot on vintage Agfa Vista 200 film. --style raw --ar 21:9 --c 10



## High-Resolution Image Synthesis with Latent Diffusion Models

Robin Rombach, Andreas Blattmann, Dominik Lorenz, Patrick Esser, Björn Ommer

By decomposing the image formation process into a sequential application of denoising autoencoders, diffusion models (DMs) achieve state-of-the-art synthesis results on image data and beyond. Additionally, their formulation allows for a guiding mechanism to control the image generation process without retraining. However, since these models typically operate directly in pixel space, optimization of powerful DMs often consumes hundreds of GPU days and inference is expensive due to sequential evaluations. To enable DM training on limited computational resources while retaining their quality and flexibility, we apply them in the latent space of powerful pretrained autoencoders. In contrast to previous work, training diffusion models on such a representation allows for the first time to reach a near-optimal point between complexity reduction and detail preservation, greatly boosting visual fidelity. By introducing cross-attention layers into the model architecture, we turn diffusion models into powerful and flexible generators for general conditioning inputs such as text or bounding boxes and high-resolution synthesis becomes possible in a convolutional manner. Our latent diffusion models (LDMs) achieve a new state of the art for image inpainting and highly competitive performance on various tasks, including unconditional image generation, semantic scene synthesis, and super-resolution, while significantly reducing computational requirements compared to pixel-based DMs. Code is available at [this https URL](https://github.com/CompVis/stable-diffusion).

Comments: CVPR 2022

Subjects: Computer Vision and Pattern Recognition (cs.CV)

Cite as: [arXiv:2112.10752](https://arxiv.org/abs/2112.10752) [cs.CV]

(or [arXiv:2112.10752v2](https://arxiv.org/abs/2112.10752v2) [cs.CV] for this version)

<https://doi.org/10.48550/arXiv.2112.10752>

### Submission history

From: Robin Rombach [\[view email\]](#)

[v1] Mon, 20 Dec 2021 18:55:25 UTC (46,150 KB)

[v2] Wed, 13 Apr 2022 11:38:44 UTC (38,971 KB)

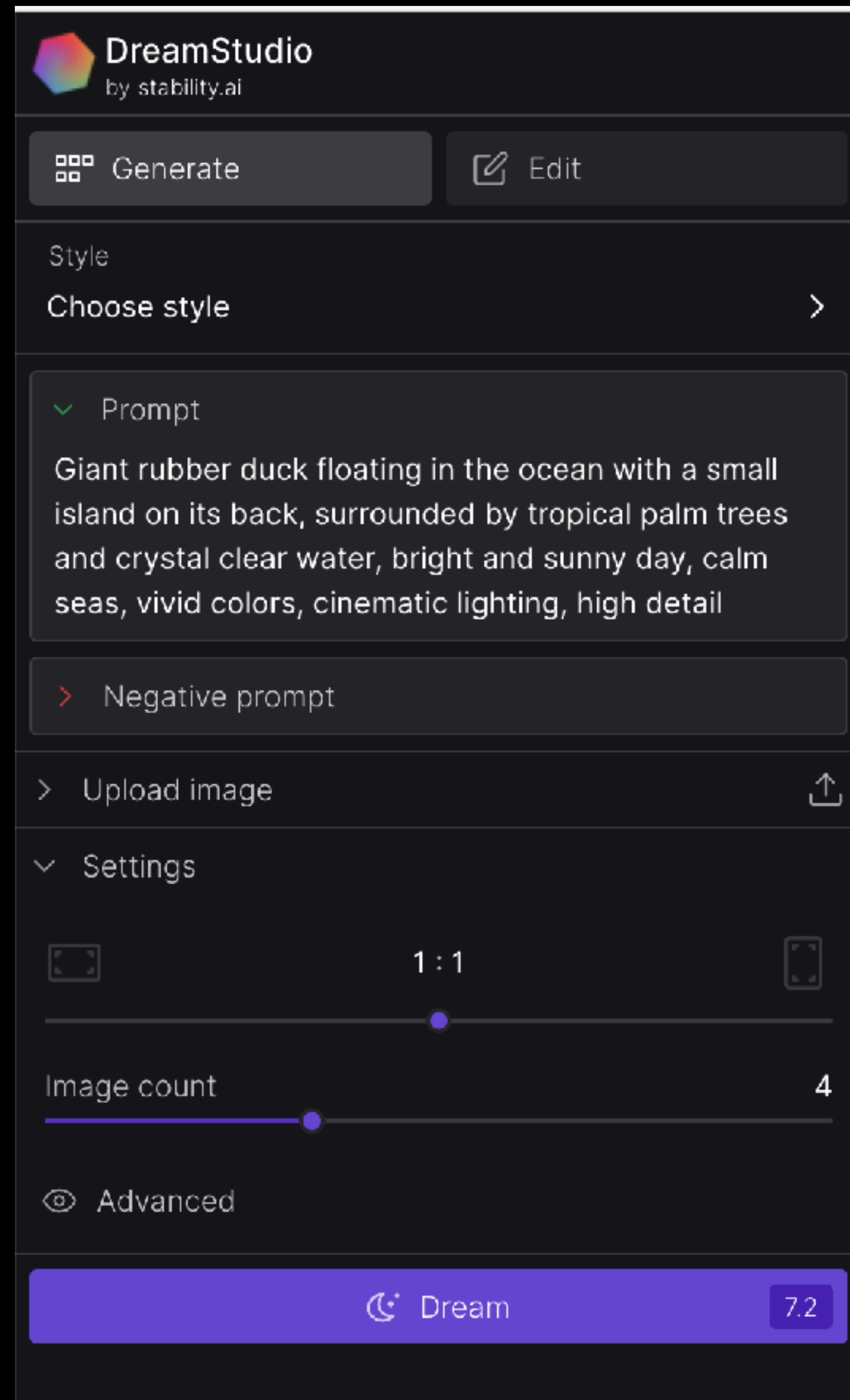
The screenshot shows the Hugging Face interface for the model 'CompVis/stable-diffusion-v-1-4-original'. It includes a search bar, navigation tabs for Models, Datasets, Spaces, Docs, Solutions, Pricing, Log In, and Sign Up. The model page features a 'Text-to-Image' label, a 'stable-diffusion' badge, and a list of related models with their respective arXiv IDs. Below this, there are tabs for 'Model card', 'Files and versions', and 'Community'. The main content area contains a description of the model as a latent text-to-image diffusion model, a 'Download the weights' section with links to 'sd-v1-4.ckpt' and 'sd-v1-4-full-ema.ckpt', and a 'Hosted inference API' section which is currently turned off. A 'Downloads last month' bar chart shows zero downloads.

<https://arxiv.org/abs/2112.10752>

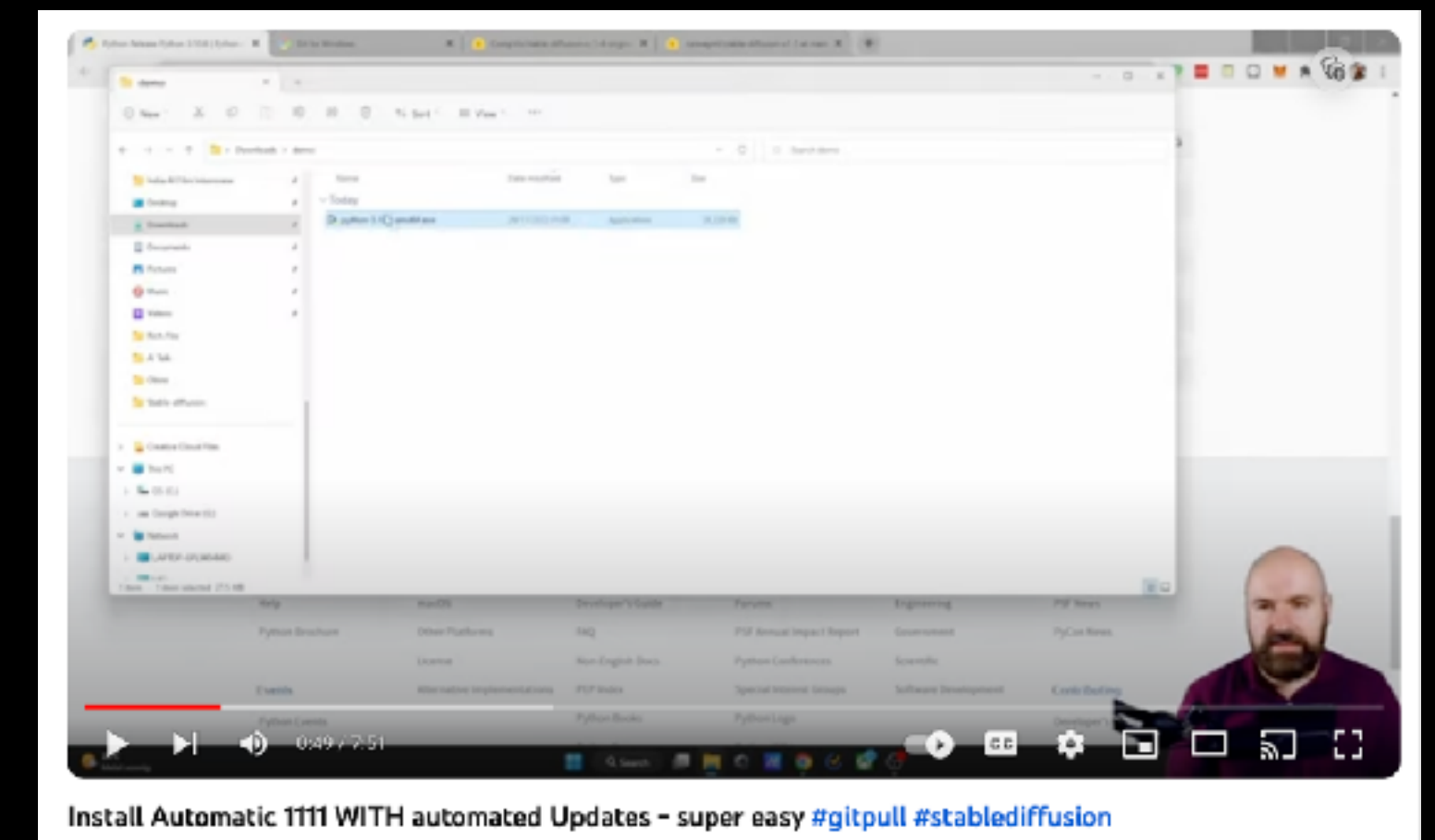
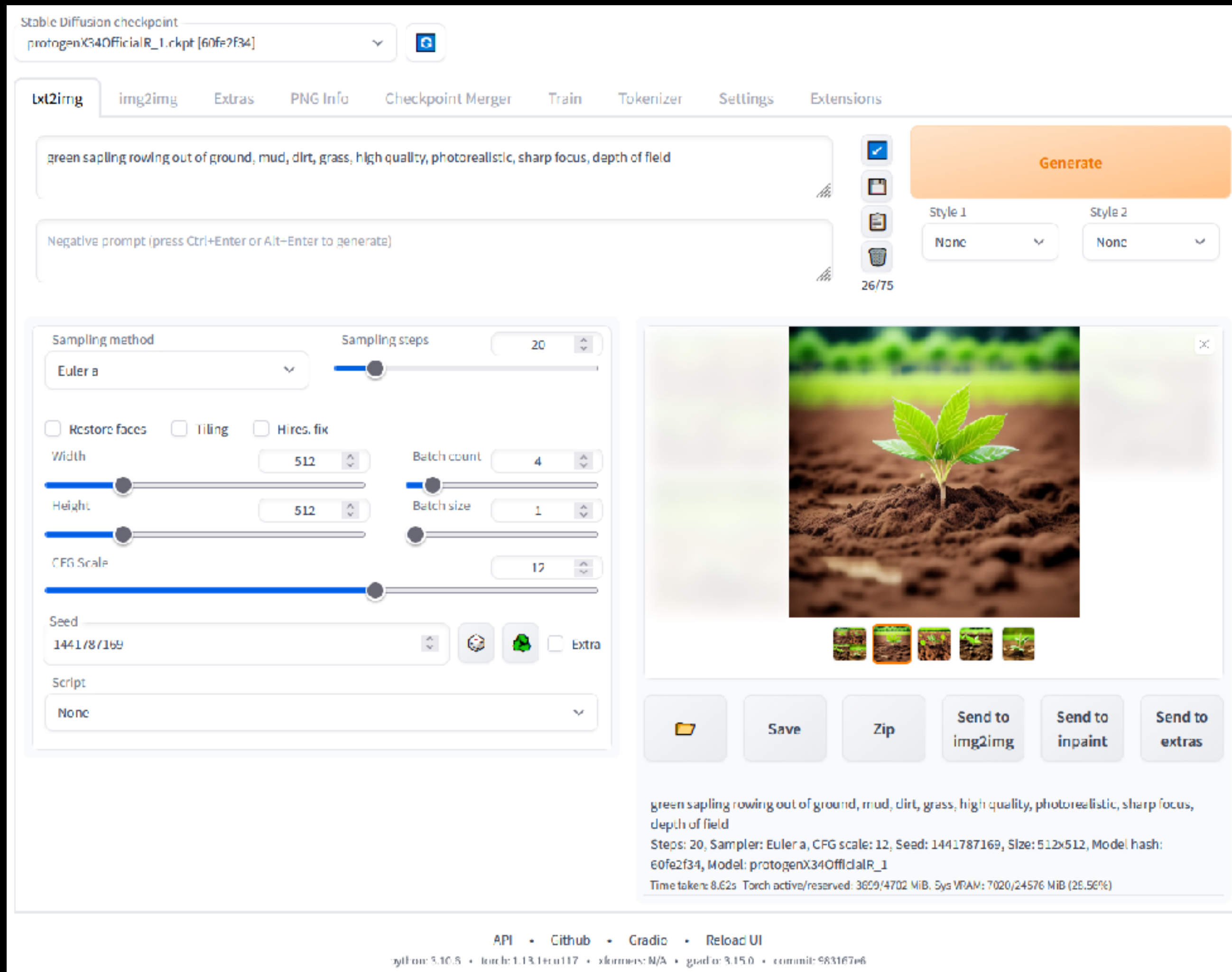
<https://huggingface.co/CompVis/stable-diffusion-v-1-4-original>

The screenshot displays the GitHub repository page for 'CompVis/stable-diffusion'. It shows the repository name, a 'Public' badge, and statistics for forks (9.3k) and stars (60.1k). The page includes navigation tabs for Code, Issues (472), Pull requests (71), Actions, Projects, Security, and Insights. A file browser shows the repository structure with folders like 'assets', 'configs', 'data', 'ldm', 'models', and 'scripts', and files like 'LICENSE', 'README.md', 'Stable\_Diffusion\_v1\_Model\_Card.md', 'environment.yml', and 'main.py'. A commit history table is visible, showing updates to 'main.py' and 'Stable\_Diffusion\_v1\_Model\_Card.md'. Below the repository information, there are four generated images: a person on a bicycle in a forest, an astronaut playing a piano in space, a white unicorn in a field, and a bear wearing a space suit.

<https://github.com/CompVis/stable-diffusion>



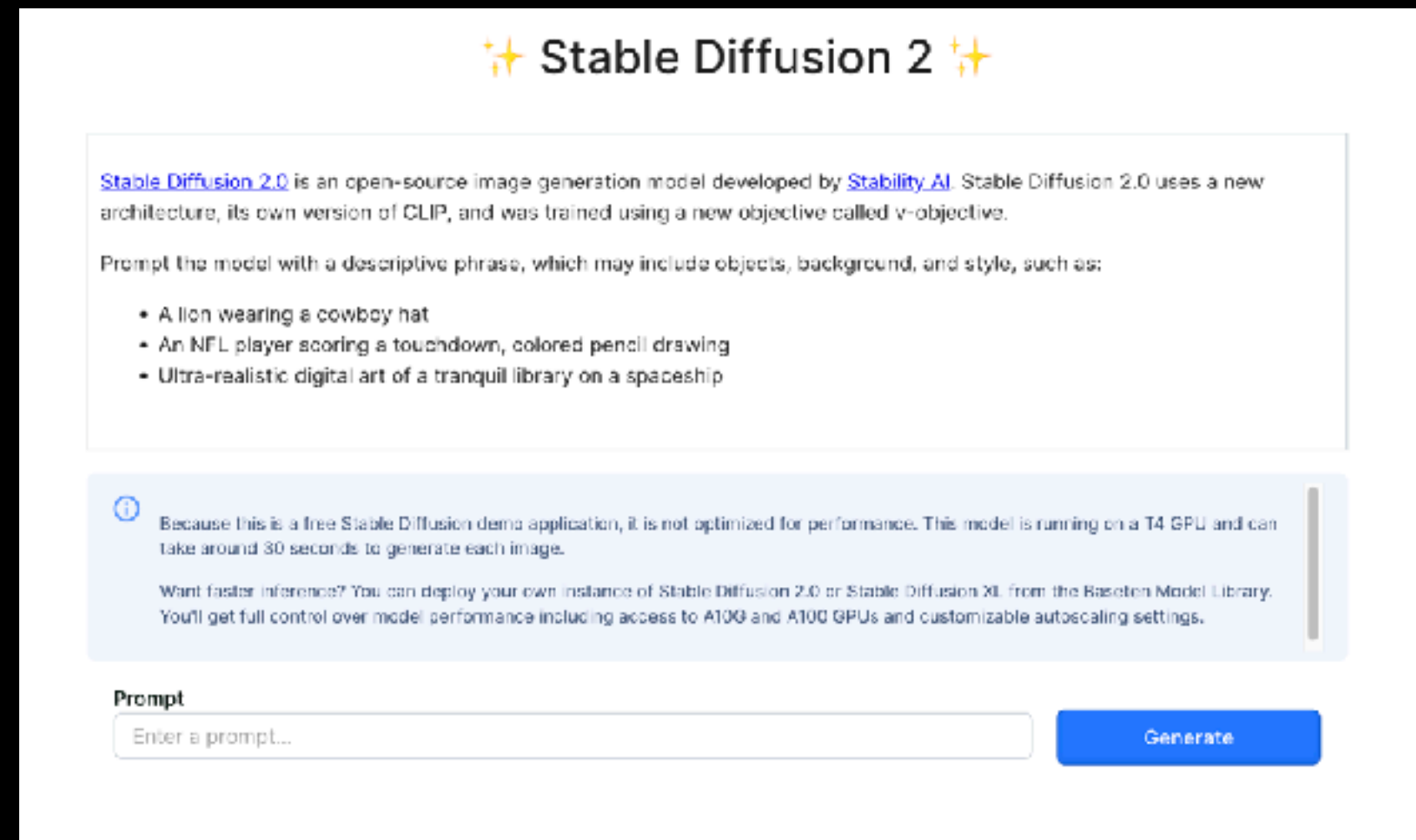
<https://beta.dreamstudio.ai/generate>



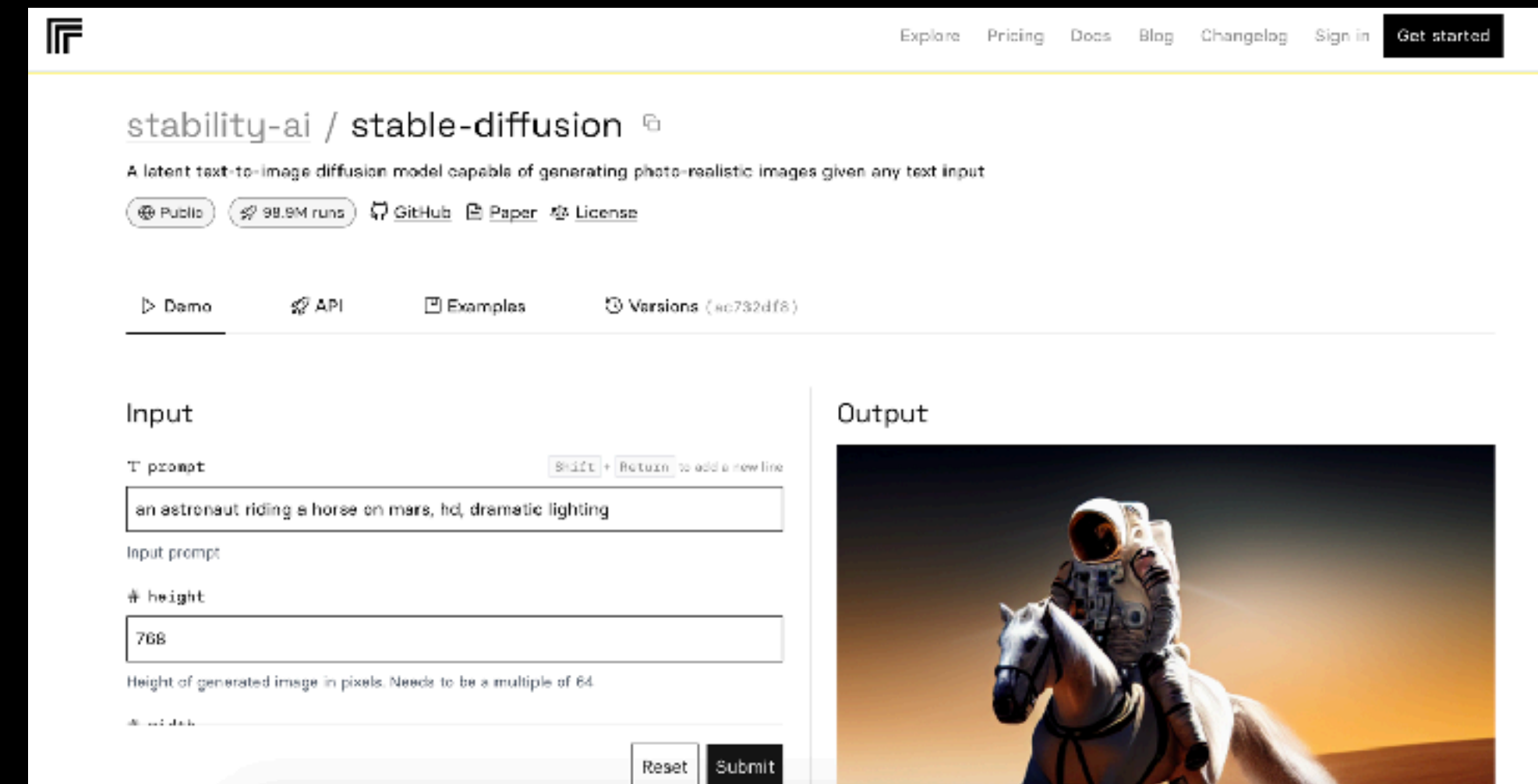
<https://www.youtube.com/watch?v=3cvP7y7otUM>

<https://github.com/AUTOMATIC1111/stable-diffusion-webui>





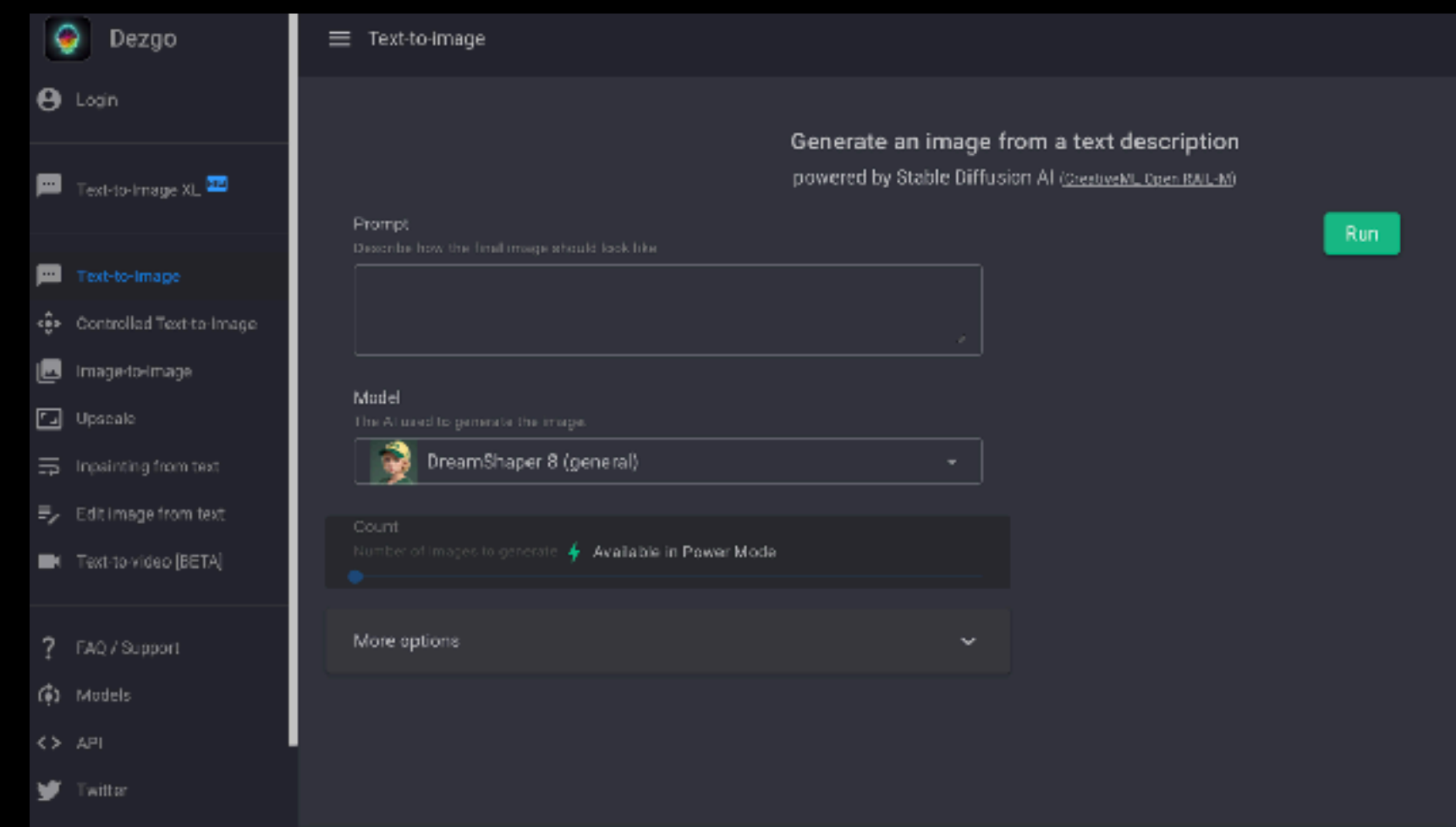
[https://app.baseten.co/apps/VBlnMVP/operator\\_views/nBrd8zP](https://app.baseten.co/apps/VBlnMVP/operator_views/nBrd8zP)



<https://replicate.com/stability-ai/stable-diffusion>



[https://colab.research.google.com/github/pinilpypinilpy/sd-webui-colab-simplified/blob/main/Stable\\_Diffusion\\_WebUi\\_Simplified.ipynb#scrollTo=gk1TyBA0Arxt](https://colab.research.google.com/github/pinilpypinilpy/sd-webui-colab-simplified/blob/main/Stable_Diffusion_WebUi_Simplified.ipynb#scrollTo=gk1TyBA0Arxt)



<https://dezgo.com/text2image>

Switch branches or tags **sd-webui-controlnet** Public

Notifications Fork 1.7k Star 12.9k

Code Issues 195 Pull requests 7 Discussions Actions Projects Wiki Security Insights

main 1 branch 0 tags

Go to file Code

**About**

WebUI extension

- Readme
- GPL-3.0 licen
- Activity
- 12.9k stars
- 143 watching
- 1.7k forks

Report repository

**Releases**

No releases published

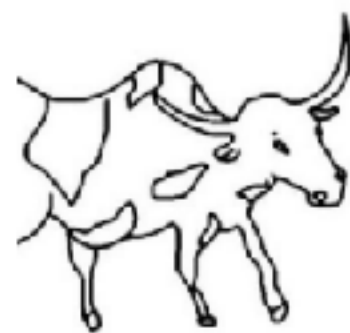
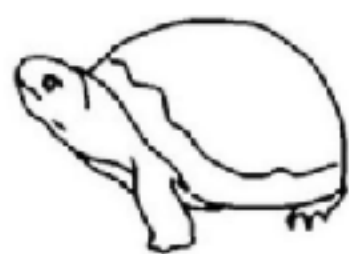
**Packages**

No packages published

Illyasviel fix Illite (#2102) ✓ e67e017 last week 1,642 commits

.github	github files (#1310)	4 months ago
annotator	fix ipadapter-plus (#2065)	2 weeks ago
example	API documentation improvements. The old txt2img and img2img exa...	2 months ago
internal_controlnet	sdxl support (for SA/HuggingFace/diffuser/community models) (#19...	2 weeks ago
javascript	Remove resize mode js logic (#2023)	3 weeks ago
models	sdxl support (for SA/HuggingFace/diffuser/community models) (#19...	2 weeks ago
samples	[Major Update] Reference-only Control (#1235)	4 months ago
scripts	fix Illite (#2102)	last week
tests	sdxl support (for SA/HuggingFace/diffuser/community models) (#19...	2 weeks ago
web_tests	Disable ControlNet input in img2img inpaint (#1763)	2 months ago

Input (User Scribble)

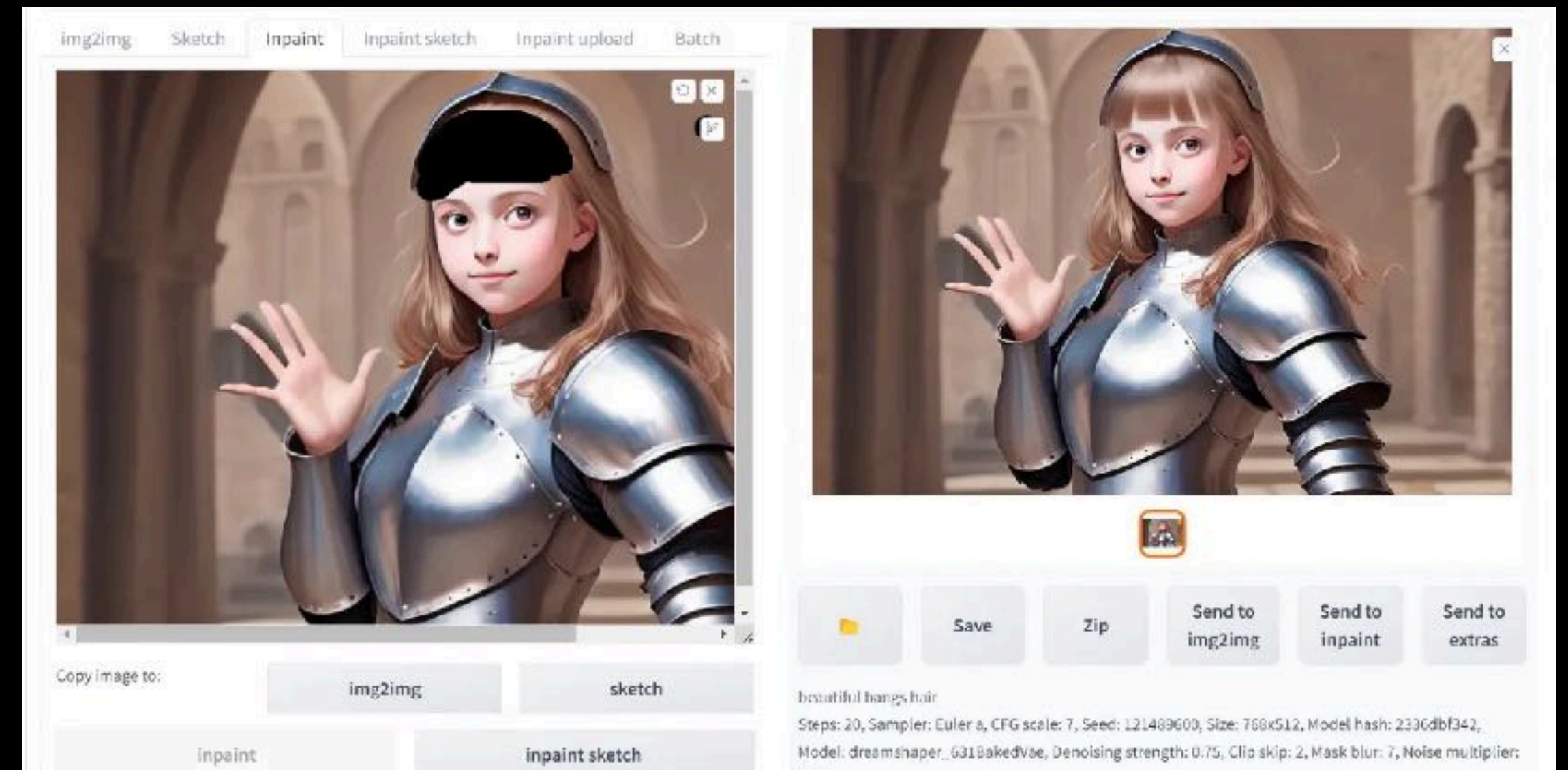


Default	Automatic Prompt		User Prompt	
	"a turtle in river"		"a masterpiece of cartoon-style turtle illustration"	
	"a cow with horns standing in a field"		"a robot ox on moon, UE5 rendering, ray tracing"	
	"a digital painting of a hot air balloon"		"magic hot air balloon over a lit magic city at night"	

<https://github.com/Mikubill/sd-webui-controlnet>



<https://antfu.me/posts/ai-qrcode>



<https://medium.com/@inzaniak/stable-diffusion-ultimate-guide-pt-4-inpainting-772ea69472c9>

<https://aituts.com/inpainting/>



<https://twitter.com/matthen2/status/1564608773485895692>

thygate / **stable-diffusion-webui-depthmap-script** Public

<> Code Issues 90 Pull requests 4 Discussions Actions Projects Wiki Security Insights

main 2 branches 0 tags Go to file Code

semjon00 Zoedepth compatibility fixes 0d579dd last week 257 commits

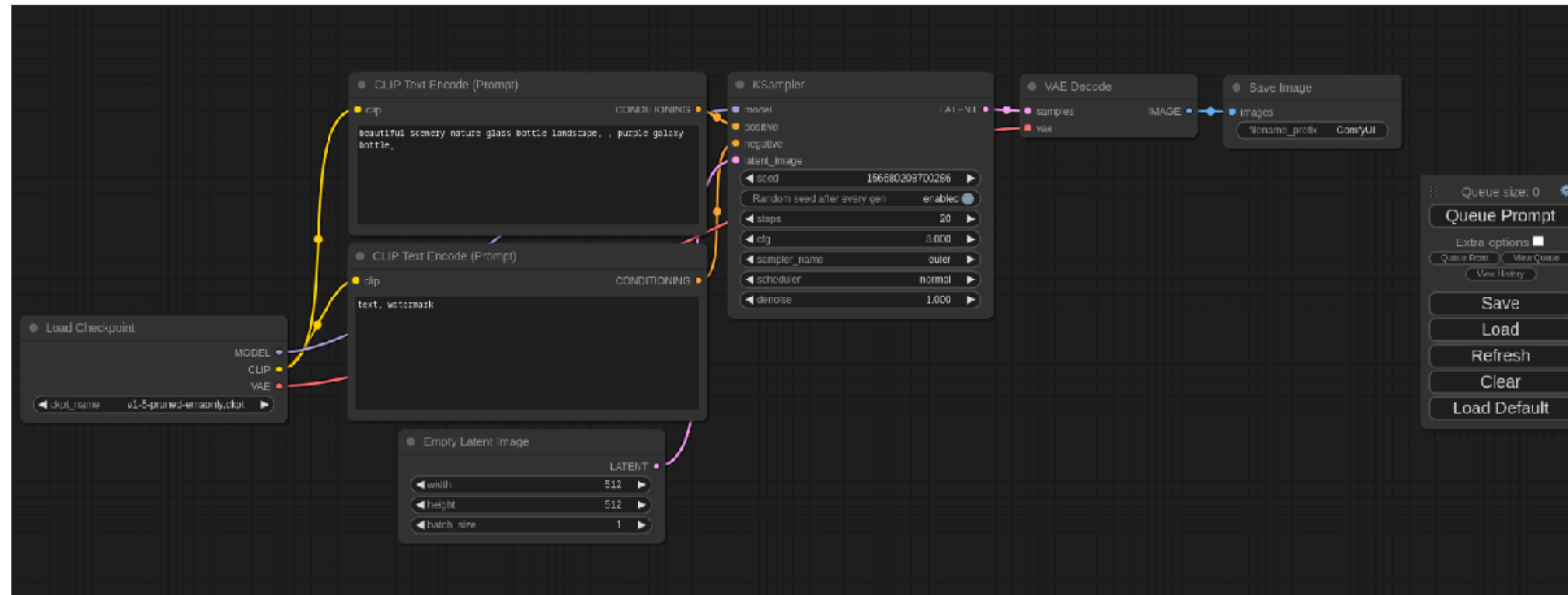
fix	2 weeks ago
fixes	last week
the scripts folder	3 months ago
and run_depthmap input system	2 months ago
the scripts folder	3 months ago
the scripts folder	3 months ago
fix gradio deprecation warnings	2 weeks ago
mesh 4-channel png error	2 weeks ago
	2 months ago
	3 weeks ago
	8 months ago



<https://github.com/thygate/stable-diffusion-webui-depthmap-script>

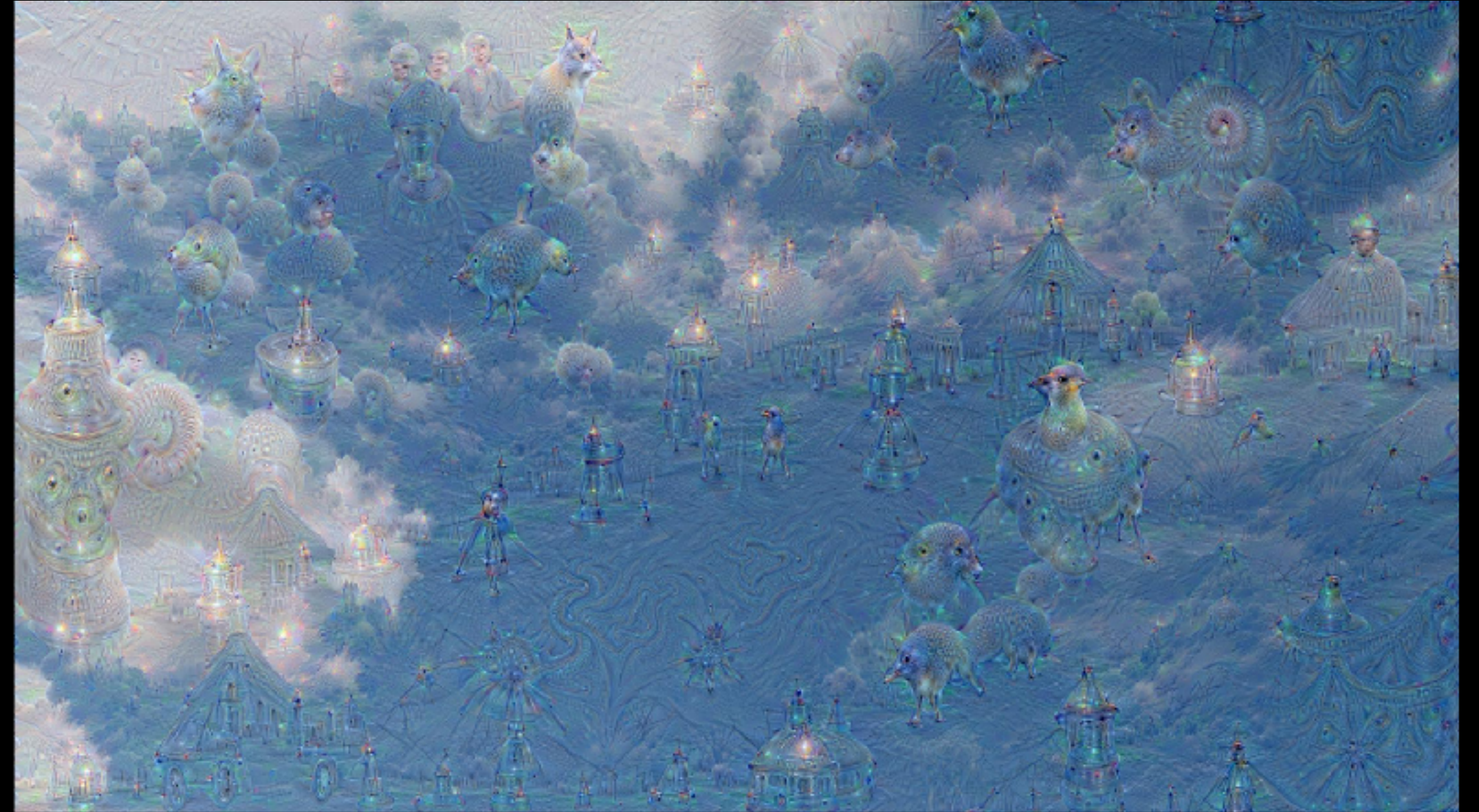
# ComfyUI [↗](#)

The most powerful and modular stable diffusion GUI and backend. [↗](#)



This ui will let you design and execute advanced stable diffusion pipelines using a graph/nodes/flowchart based interface. For some workflow examples and see what ComfyUI can do you can check out:

<https://github.com/thygate/stable-diffusion-webui-depthmap-script>



google / deepdream Public

Code Pull requests 9 Actions Projects Security Insights

master 1 branch 0 tags

znah Merge pull request #21 from jluogu-note bbc2dd1 on Aug 12, 2015 23 commits

LICENSE	guided dream	8 years ago
README.md	Updating readme with more info.	8 years ago
dream.ipynb	Add comments on how to enable Caffe GPU operations.	8 years ago
flowers.jpg	guided dream	8 years ago
sky1024px.jpg	initial	8 years ago

README.md

### deepdream

This repository contains IPython Notebook with sample code, complementing Google Research [blog post](#) about Neural Network art. See [original gallery](#) for more examples.

About

No description, website, or topics provided.

- Readme
- View license
- Code of conduct
- Security policy
- Activity

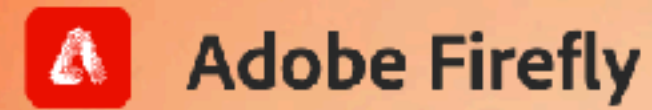
13.2k stars  
910 watching  
3.2k forks  
Report repository

Releases

No releases published

<https://github.com/google/deepdream>





# Your imagination's new best friend.

Use generative AI and simple text prompts to create the highest-quality output — beautiful images, text effects, and fresh color palettes. Make all-new content from reference images and explore more possibilities, more quickly.

Get Firefly free

Dog in a sweater, primary col...

Generate



Text to Image

Generative Fill

Text Effects

<https://firefly.adobe.com/inspire/images>

# Real-Time Latent Consistency Model

## Image to Image

This demo showcases [LCM](#) Image to Image pipeline using [Diffusers](#) with a MJPEG stream server.

There are 2 user(s) sharing the same GPU, affecting real-time performance. Maximum queue size is 4. [Duplicate](#) and run it on your own GPU.

### Prompt

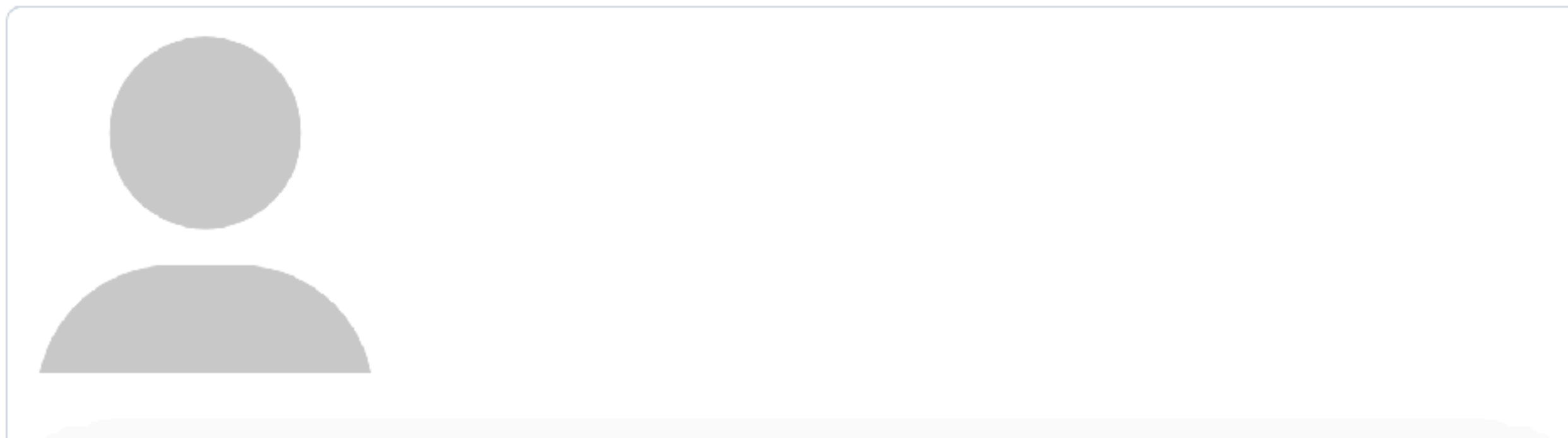
Change the prompt to generate different images, accepts [Compel](#) syntax.

Portrait of The Terminator with , glare pose, detailed, intricate, full of colour, cinematic lighting, trending on artstation, 8k, hyperrealistic, focused, extreme details, unreal engine 5, cinematic, masterpiece

### ► Advanced Options

Start

Stop



<https://huggingface.co/spaces/radames/Real-Time-Latent-Consistency-Model>

# IMAGE STYLIZATION + EDITING

# Create an AI with your own style.

Try KREA for free →

Learn more ↕

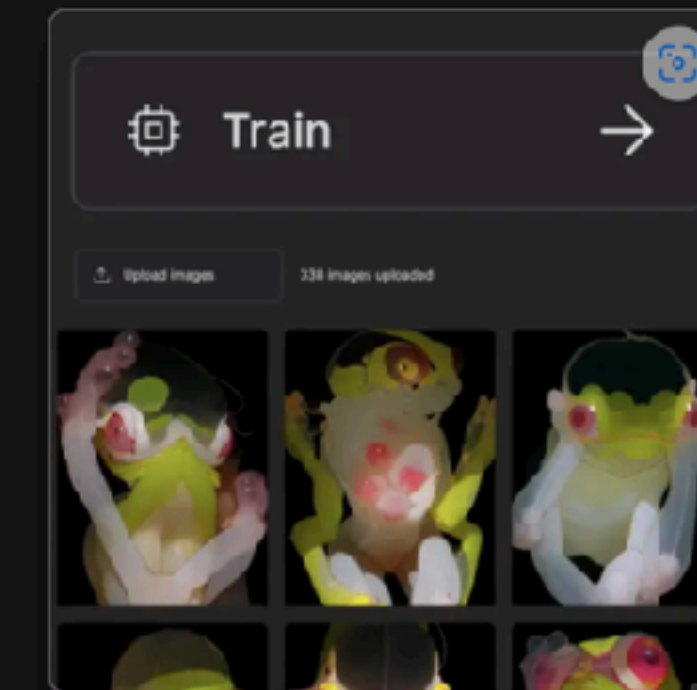
1

## UPLOAD IMAGES



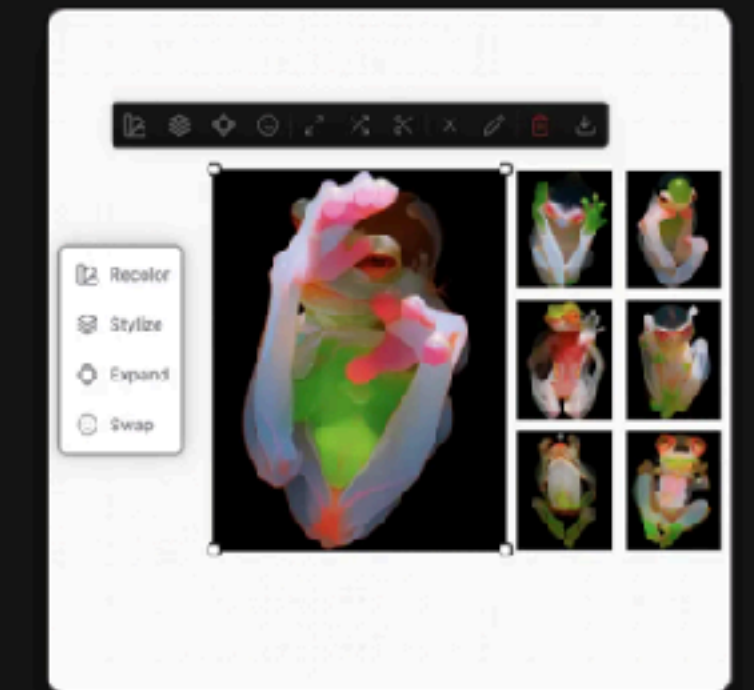
2

## TRAIN AI



3

## GENERATE IN CANVAS



<https://www.krea.ai/#how-it-works>

- Home
- This Device
- PeaDrive
- Dropbox
- OneDrive
- Google Drive
- Shared Drives
- Shared with me
- Private Folder



# Photopea

New Project

Open From Computer

Templates

Drop any files here



.PSD



.AI



.XD



.sketch



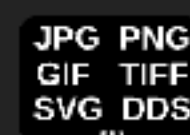
.PDF



.XCF



RAW



ANY

<https://www.photopea.com/>

# IMAGE TO TEXT

## CLIP Interrogator

Want to figure out what a good prompt might be to create new images like an existing one?  
The CLIP Interrogator is here to get you answers!

You can skip the queue by duplicating this space and upgrading to gpu in settings: [Duplicate Space](#)

Prompt Analyze

Image

Drop Image Here  
- or -  
Click to Upload

CLIP Model

ViT-L (best for Stable Diffusion 1.\*)

Mode

best  fast  classic  negative

Submit

Output

Share to community

Examples

What are some creative ways you could imagine using Stable  
Diffusion or other generative image techniques?





<https://huggingface.co/spaces/pharmapsychotic/CLIP-Interrogator>

# ARCHIVAL RESOURCES

# Further approaches

- Image generation: These AI-powered tools leverage generative models to create new images from scratch. Some of the popular tools that use GANs (Generative Adversarial Networks) or VAE (Variational Auto-Encoders) include DALL-E, Artbreeder, and GANBreeder.
- **Image enhancement:** These tools use AI to enhance the quality of existing images by improving their resolution, removing noise, and adjusting the color balance. Some of the popular tools that offer these features include Let's Enhance, Enhance.AI, and Waifu2x.
- **Image recognition:** These tools use computer vision and deep learning algorithms to detect and classify objects within images. Popular examples include Clarifai, IBM Watson Visual Recognition, and Google Cloud Vision.
- **Remove.bg:** An AI-powered tool that removes background from images
- **Let's Enhance:** An image upscaling tool that uses AI to enhance and improve image quality
- **DeepArt:** A tool that uses neural networks to transform images into artistic styles, similar to famous paintings, etc.
- **Artisto:** An AI-based app that transforms pictures and videos into works of art.
- **Enhance.ai:** A solution that uses AI to improve the clarity, quality, resolution and color of images.

# HOMework

# Homework

- In groups of two, explore the use of 3+ of the image generation tools presented in class
- Create images, artworks, etc.. related to your interests / topic for the course
- This work should be able to be presented as a standalone project, but should ideally contribute towards the development of your final project
- Presentation format is open to student preference, but should be limited to 3-5 minutes