

Interreg Knowledge Fair 2024

# Generative AI: text-to-image models

Arkam Oğrak / Interact / 5 March 2024

**Interact**



Co-funded by  
the European Union  
Interreg

# Is the **hype** based?

**Decide for yourselves**





























# Text-to-image tools

	<b>Native platform</b>	<b>Third party interface?</b>	<b>Best for</b>
<b>Midjourney</b>	Discord	No	Realistic photos
<b>Dall-E</b>	OpenAI, GPT4	Yes	Natural lang prompts
<b>Stable Diffusion</b>	Local machine	Yes	Art, illustrations
<b>Imagen(beta)</b>	Google	??	??

Also less popular ones: Muse, DreamBooth, Dreamfusion...





# Midjourney (r)Evolution

Prompt: Latvian farmer with a gigantic pumpkin, realistic photo --v

# Midjourney (r)Evolution



v1, Feb 2022



v2, Apr 2022

# Midjourney (r)Evolution



v3, July 2022



v4, Nov 2022

# Midjourney (r)Evolution



v5, Mar 2023

v5.1, May 2023

# Midjourney (r)Evolution



v5.2, June 2023



v6, Dec 2023

# Midjourney (r)Evolution



v1, Feb 2022



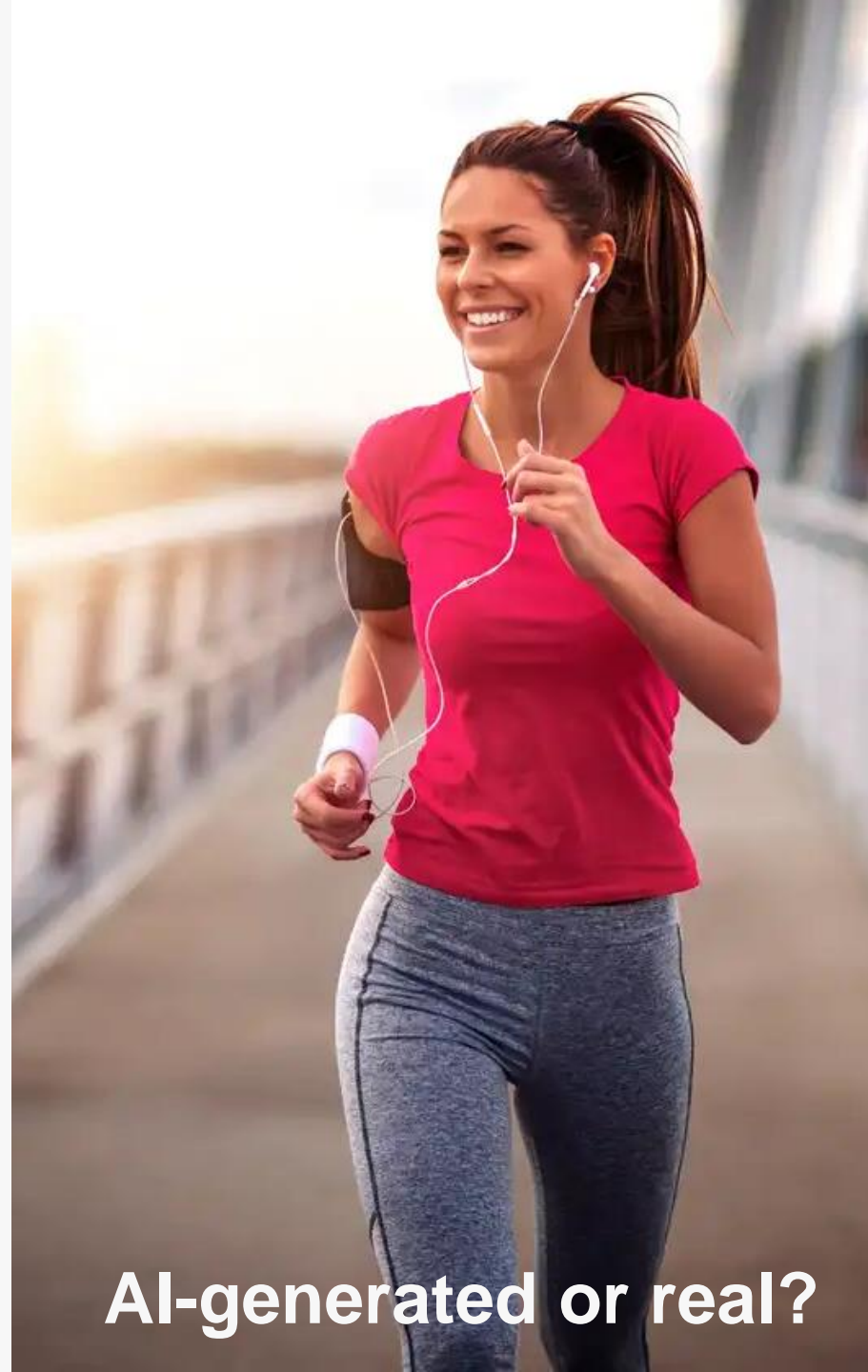
v6, Dec 2023



AI-generated or real?







AI-generated or real?



## Original



[Steve McCurry](#) **Afghan Girl, 1984**

## Midjourney



/imagine Teenage girl, Afghan refugee, emerald eyes, red head scarf, national geographic photography, cinematic, global illumination, Kodachrome 64 colour-slide film, Nikon FM2 camera, Nikkor 105mm Ai-S f/2.5 lens, --ar 2:3 --v 4

- Events
- TEXT CHANNELS
- # ikf-riga
- # visuals-for-ppt
- # athens-ai-session
- # cap-com-valencia
- # espon-story-video
- # webinar-clean-page
- # basic-prompting
- # chaos
- # stylize
- # weird
- # view-angles
- # cameras
- # art-styles
- # artists
- # video
- # blend-command
- # advanced-final
- # general
- # interreg-video
- # interreg-video2
- # private
- # describe
- # ai-presentation
- # wallpapers

U1 U2 U3 U4

V1 V2 V3 V4

Only you can see this - Deleted message

Arkam used /settings  
 Midjourney Bot Today at 22:22  
 Adjust your settings here. Current suffix: --v 5.2

Midjourney Model V5.2

RAW Mode Stylize low Stylize med Stylize high Stylize very high

Public mode Remix mode High Variation Mode Low Variation Mode

Sticky Style Turbo mode Fast mode Relax mode Reset Settings

Only you can see this - Deleted message

Arkam used /imagine  
 Midjourney Bot Today at 22:23  
 Teenage girl, Afghan refugee, emerald eyes, red head scarf, national geographic photography, cinematic, global illumination, Kodachrome 64 colour- slide film, Nikon FM2 camera, Nikkor 105mm AI-S f/2.5 lens, --ar 2:3 --v 4 - @Arkam (0%) (fast)



COMMANDS MATCHING /im

- /imagine prompt** - Create images with Midjourney (Midjourney Bot)
- /timeout** - Time out user (Built-in)
- /describe** - writes a prompt based on your image (Midjourney Bot)
- /blend** - Blend images together seamlessly (Midjourney Bot)

/im{

- ONLINE -- 2
- Arkam
  - Midjourney Bot

# Midjourney Prompts: How a Comma Affects the Output



@ciguleva

0.04 0.12 0.28 0.18 1.00 0.46 0.01 0.00 0.27  
photo of a minimalist futuristic transparent car, forestpunk, muted tones, neon

+19 +8 -5 -10 +20 +1 +9  
0.23 0.20 0.23 0.08 1.00 0.69 0.02 0.00 0.36  
photo of a minimalist, futuristic, transparent, car, forestpunk, muted, tones, neon




← → ↻ https://chat.openai.com/c/3d02e44e-c13b-4eac-a9d0-47071aafbcfc ☆ 100% + 📄 📄 📄 📄

🗑️ DALL-E 3 ⓘ ⬆️

GP "Photographic capture of an enigmatic otherworldly realm, land of megaflora and a radioactive lake, set against a sprawling plain, daytime, National Geographic style, towering native plants in their natural vibrant colors, featuring incomprehensible alien flora, sky with a single sun, real-life atmosphere, intricate textures captured, 35mm lens, ISO 100, f/8, high-definition quality.

🌀 DALL-E 3 Created 4 images 📄 👍 🗨️



Here are the images inspired by your description of an enigmatic otherworldly realm. Each image showcases the vast plains, towering megaflora, and the radioactive lake, captured in the style of National Geographic. Please let me know if any of these resonate with your

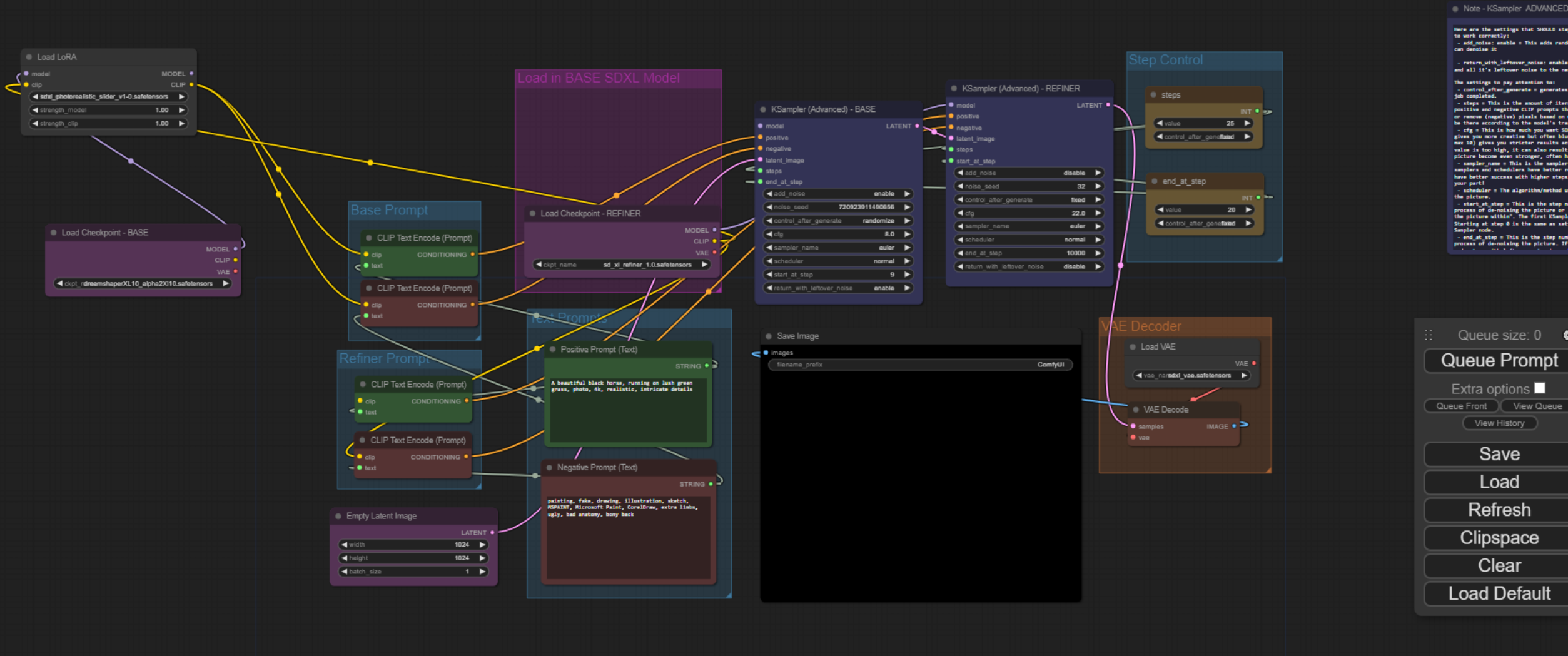
🔄 Regenerate ⬇️

Send a message ➔

?

ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT September 25 Version](#)

# Stable Diffusion



# Generative fill/inpainting feature

[Link to the video](#)



# Outpainting/zoom out feature

[Link to the video](#)





# Blend feature



+



=



## Describe feature (img-to-text)

1 a young woman with a red scarf and blue eyes, in the style of national geographic photo, dark emerald and light brown, light red and green, portraitist extraordinaire, use of screen tones, pop-culture-infused --ar 37:56

2 an embroidered shawl has a girl's face that is looking at the camera, in the style of [steve](#), light red and green, [steve hanks](#), associated press photo, pure color, wandering eye, dau-al-set --ar 37:56

3 this girl is wearing red and green shawl, in the style of national geographic photo, intense gaze --ar 37:56

4 a young woman with scarred skin wearing scarf, in the style of [steve](#), photorealistic eye, realistic color schemes, [edwin lord weeks](#), light red and dark emerald, made of all of the above, distinctive noses --ar 37:56



 Imagine all

# Copying styles – possibilities are endless!



 +  
Input Audio



Single Image



Video Synthesis

## EMO: Emote Portrait Alive - Generating Expressive Portrait Videos with Audio2Video Diffusion Model under Weak Conditions

*LinRui Tian, Qi Wang, Bang Zhang, LieFeng Bo*  
*Institute for Intelligent Computing, Alibaba Group*



Link to all Sora videos on the next slides:  
<https://openai.com/sora>























100%





# Final tips to wrap up

- If you can imagine it, you can generate it!
- Authenticity first! Use genuine visuals from real projects, use AI if none available.
- Human supervision is key: always review the generated outputs carefully & revise.
- Research, but don't get lost in details. Try new tools, see what works for you.
- Consider the legal & ethical concerns.
- Combine different tools.
- More Interact services on the way, stay tuned and join the events!
- Certified training: Use of AI in Interreg communication (May-June 2024)

# Useful links

- Watch the [Interact webinar](#) on AI tools for communication
- <https://openart.ai> for free generations and trying out different models
- Also check out [Nightcafe](#), [PlaygroundAI](#), [LeonardoAI](#)
- [RunwayML](#), powerful website, trend-setting developers
- Video generation tool, [Pika](#). Currently premature, but developing fast
- And of course, [Midjourney](#). Check out the user documentation for self-training