



AI Tools to Help Artists

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Overview

What is AI art?

Tools for 3D
Modeling and
Animation

Tools for 2D Art
and Editing

AI-generated
video and
animation

What is AI art?

“AI art is, simply, artwork made with the assistance of generative AI — a technology that finds patterns in big datasets and uses that information to create new content”

“The current Firefly generative AI model is trained on a dataset of Adobe Stock along with openly licensed work and public domain content where copyright has expired.”



Prompt: “AI Art” in
Adobe Photoshop



AI is also an art tool!

- Not all images are fully ai generated
- Working alongside AI
- Different forms of input
 - Text prompts
 - Images
- Output can be modified afterwards



person looking at funyuns on a table



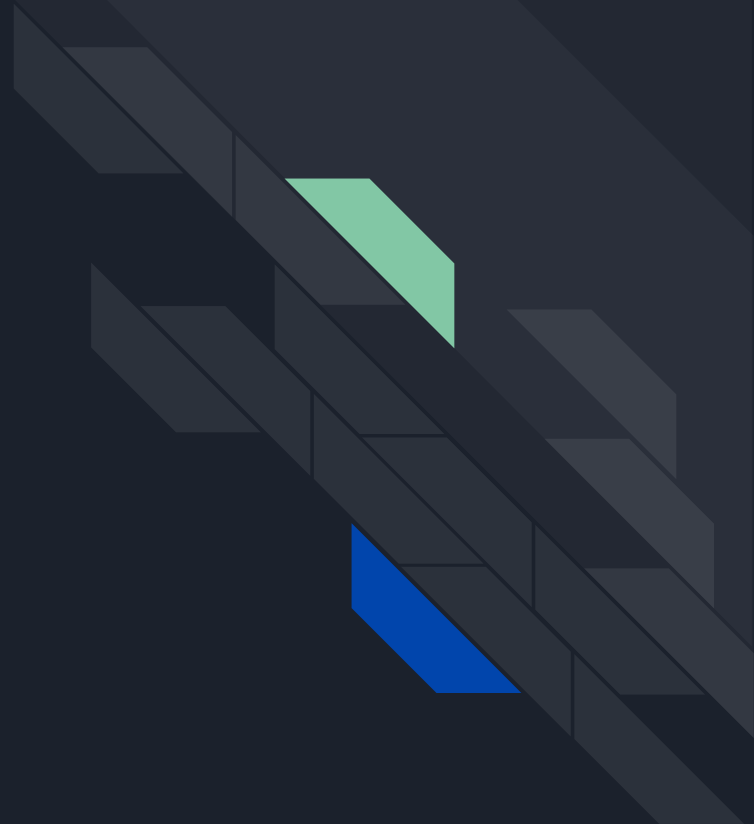
Cancel



Generate



Tools for 3D Modeling and Animation



3D Modelling

- One of the most time-consuming processes in 3D art besides animation.
- text-2-3D models exist, but often use too many polygons for the quality they provide.
- Ethically useful for the creation of mundane objects (Wet floor signs, air compressors) while artists focus on more important models.



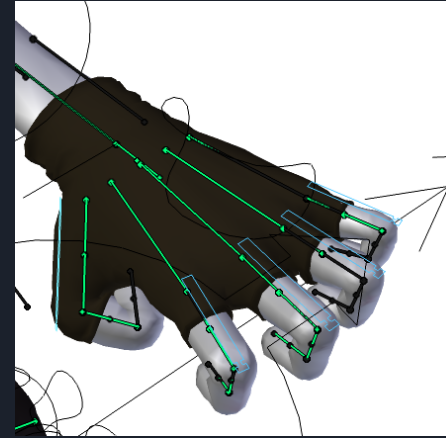
~20k polygons per model
Human Made

~20k polygons per model
AI Generated



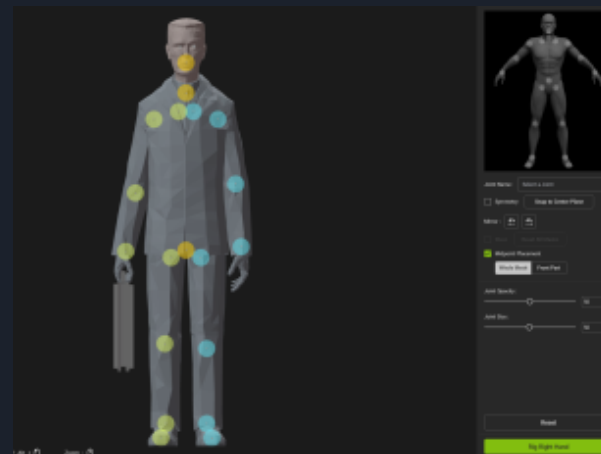
Rigging

- Rigging - taking a 3D model and mapping a skeleton inside of it for animation.
- Artists are needed for unique models, but can be trivial for them to rig endless background models/characters.
- ActorCore's AccuRig is a AI-powered tool that uses integrated graphics to guess the skeleton of a given model.



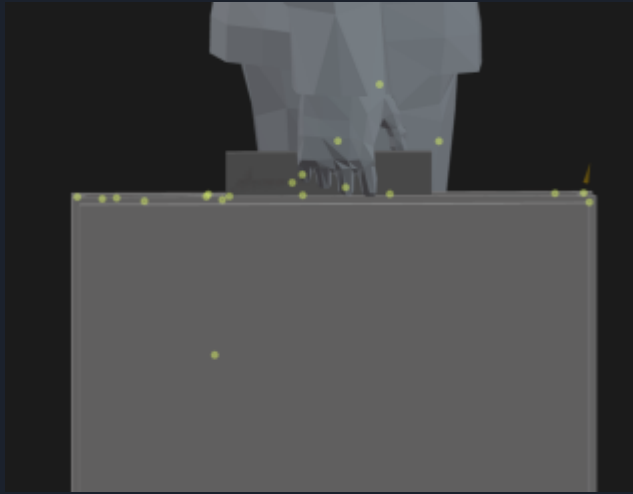
AccuRig Demo

- To test AccuRing, I rigged a famous 3D model that was considered cutting edge 20 years ago.
- Some corrections were needed on the hand holding the briefcase, yet the tool was able to map the joints on the model.
- Including manual corrections, it took 10 minutes to rig a model as a beginner compared to the hour minutes a professional would take.

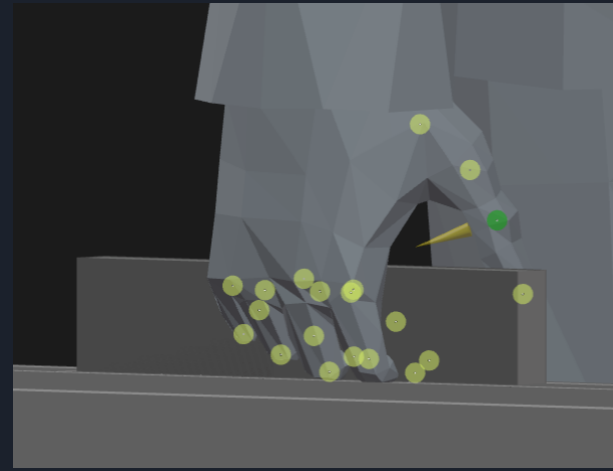


AccuRig Manual Corrections

- It took roughly 6 minutes to correct the joints in the right hand.
- Might be representative of how AI will impact digital work, most humans will be fine tuning work produced by AI.



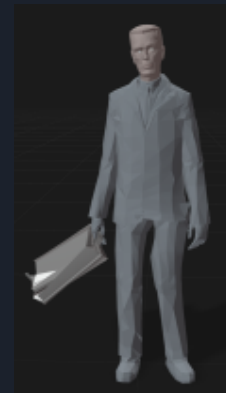
Before Corrections



After Corrections

AccuRig Limitations

- Models with a lower polygon count (such as a 20 year old character) confuse the AI's ability to properly map the model's mesh to the produced skeleton.
- The AI has incredible accuracy with models made for modern software and requires almost no correction.
- Compared to AI-generated 3D models, it is faster for artists to correct a bad skeleton on a model they created.



~30 minutes of corrections in Blender

Character made for use in Unreal Engine 5, no corrections

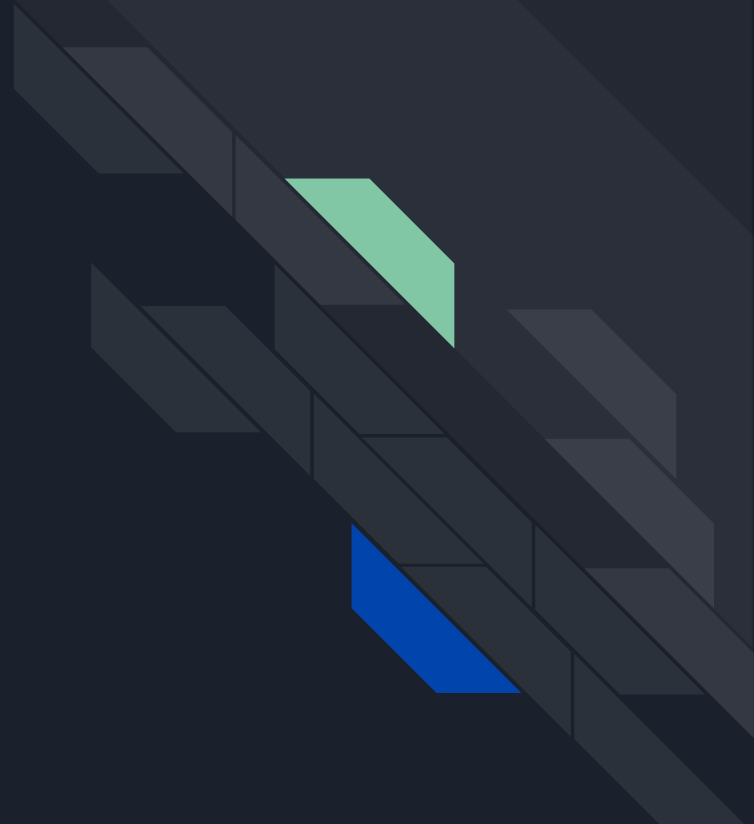


3D Animation

- Most efforts for automating 3D animation are seen in text-2-video or video-2-video models.
- Some startups such as RADiCAL promise video-2-animation models that allow people to capture human movement from videos without the need of motion capture equipment.



Tools for 2D Art and Editing



Supporting Creativity

- AI can do tasks in art that would typically be very annoying, or speed up time consuming repetitive processes
- Current examples include background blur, resizing, and cropping images
- This allows artists to spend more time focusing on their creative vision, so they can create more high quality work

“By automating certain aspects of the creative process, artists can allocate more time to explore and refine their artistic concepts rather than getting bogged down in repetitive tasks.”





SKILL
Share.

udemy



Teaching New Artists

- Current programs for teaching artists (school, online classes, reference sets) are often very expensive, and free options lack personalization
- AI chatbots could provide individual feedback to artists, perhaps taking images of their artwork and analyzing them
- Artists can also ask chatbots questions, though current answers aren't always accurate
- Assuming AI remains relatively accessible, this could allow new people to enter the art world who couldn't afford an education before



Digital Art Revolution VS AI

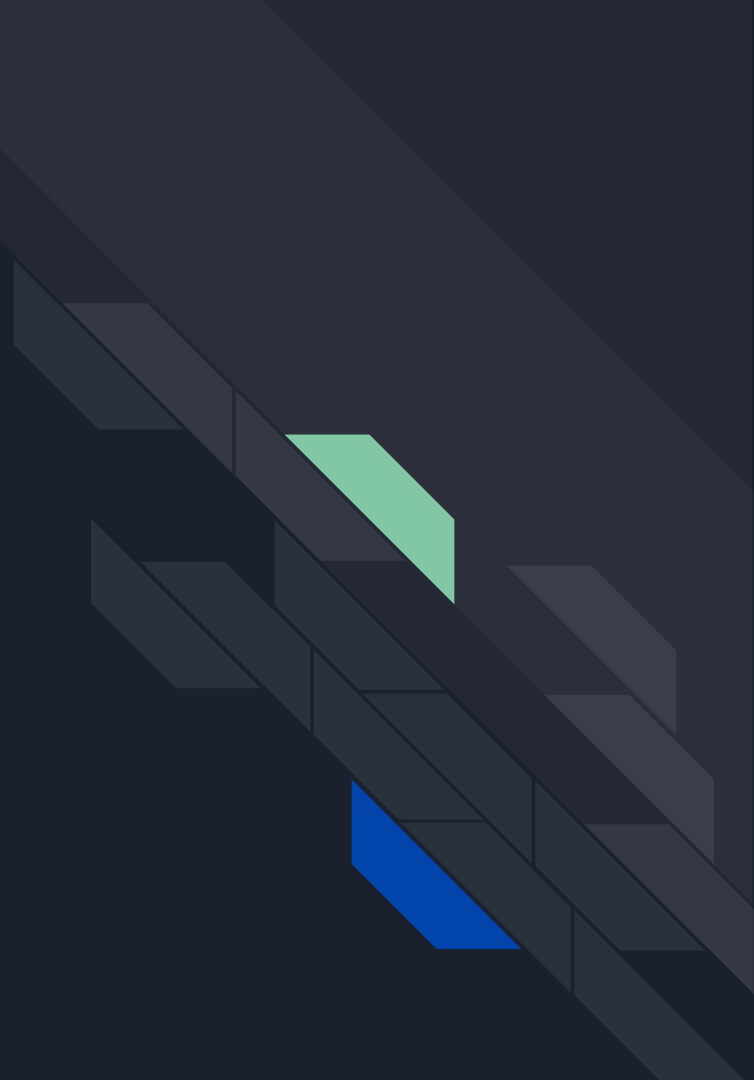
- Similar to how AI art is changing the landscape now, digital art had a similar effect which ended up being very positive for artists as a whole
- Many tools available to digital artists are impossible to reproduce in real life, such as undos, customizable brushes, and copy paste
- Traditional artists worried that the ease of digital art would invalidate their craft, but digital art is now its own respected art form
- AI (specifically generative AI) poses more of a threat to artists than digital art ever did
- However, it's important to keep an open mind when looking at new technology
- What we think is a threat now may become a supportive tool we can't go without
- However, current AI relating to 2D art is more focused on generating rather than supporting



Why not replace artists?

- Throughout human history, automation has been used to perform tedious, time consuming tasks that are unfulfilling, harmful, or impossible for humans
- Art in all forms is an important source of human fulfillment. Many people consider art to be a core part of their identity
- Beyond art for the sake of consumption, it's also a form of self expression. This cannot be replicated by AI
- While AI art has its benefits, it's a slippery slope to make sure companies don't eliminate artists. The simple act of advancing generative AI encourages this behavior (from a business viewpoint, just saves time and money)
- What do we want our future to look like?

AI-generated animation



Sora (OpenAI)

- Revealed February 16, 2024 by OpenAI
- Not yet publicly available
- Very high-end compared to other AI-generated videos
- Generates up to 60-second videos from a text-prompt



Prompt: A petri dish with a bamboo forest growing within it that has tiny red pandas running around.

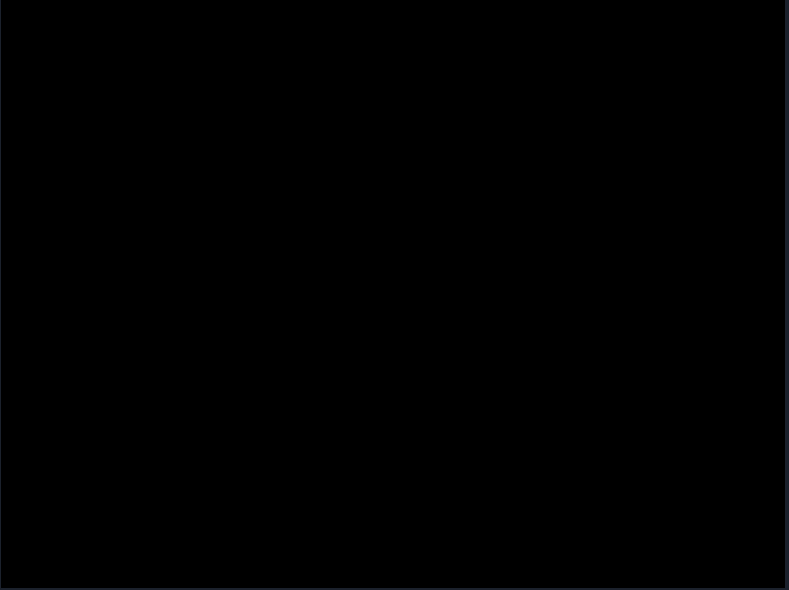


The Limitations

- Only good at generating things it's familiar with
- Lacks creativity
- Relies heavily on prompt given and prompts can be quite long
- Still looks messed up due to technology

“The current model has weaknesses. It may struggle with accurately simulating the physics of a complex scene, and may not understand specific instances of cause and effect. For example, a person might take a bite out of a cookie, but afterward, the cookie may not have a bite mark.

The model may also confuse spatial details of a prompt, for example, mixing up left and right, and may struggle with precise descriptions of events that take place over time, like following a specific camera trajectory.” - OpenAI



Prompt: Five gray wolf pups frolicking and chasing each other around a remote gravel road, surrounded by grass. The pups run and leap, chasing each other, and nipping at each other, playing.

I had to see this, you do too

- Generating unfamiliar characters
 - The amazing digital circus (2023) characters
- Absolute brain rot, I am sorry



Conclusion

- 3D Artists are currently being offered tools that can expedite their workflows, but results require human intervention.
- 2D Artists are more under threat by AI tools, but the field has the potential to liberate them from tedious parts of their process.
- 3D Animation/Video generation is still in its infancy, however has the potential to rapidly develop similar to txt2txt or txt2img models.





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