From: Institute Of Digital Arts Jamaica

# ARTIFICIALLY GENERATED ANIMATION FILM PRODUCTION

(Non-Photorealistic Rendering [NPR]) (Odin-All-Father Edition)





Written by: Israel Andrew Brown Email: israelandrewbrown@proton.me

## **Table Of Contents** Page Course Outline......5 Course Resources ......6 Course Bibliography.......7 "The Six Essential Roles On The New Pipeline".......8 Generative Artificial Intelligence Models (March 2025)......9 Generative Artificial Intelligence Models (SaaS)......10

# Israel Andrew Brown

Art Director | Film Director | NPR Generalist | A.I Film Prompt Engineer



Contact Information: Location: Jamaica W.I.

Email: israelandrewbrown@proton.me Website: israelandrewbrown.com

### Awards and Recognition:

- JCDC Gold Visual Arts Competition - Cecil Cooper Foundation Bursary
- Heart NTA/TVET Scholarship
- Heart NTA/TVET Scholarshi
   Chase Scholarship

### Chille:

Story Development (Ollama) (OpenWebUI)

- Deepseek R1

Concept Development (Comfy UI)

- Image Generation (Stable Diffusion 1.5)
- Image Generation (Flux 1 Schnell)

### Audio Development (Pinokio)

- Expressive Voiceover (zonos-tts)
- Music Production (audio-to-audio) (YuE)
- Sound Effects (Stable Audio Open 1.0)

### Prop Development

- Photogrammetry (Meshroom)
- 3D Model Reconstrcution (Hunyuan3D 2.0)
- Texturing (Stable Projectorz)
- Krita v5.3

### **Motion Capture Development**

- Blender v3.0-v4.0
- Face Landmarker Link V0.2
- FreeMoCap v1.5

### Hobbies and Interests:

- Chess
- Culinary Arts

### Who Am I?

I, Israel Andrew Brown, am a dedicated creative professional specializing in art direction, film direction, Non-photorealistic Art, and Artificially Generated Art. My passion lies in transforming ideas into visually compelling and functional designs and film that tell stories, solve problems, and inspire innovation.

### **Artist Statement**

I am driven by a vision to educate and empower others through the integration of open-source tools, software and artificial intelligence (edge A.I.) in creative industries. By leveraging these technologies, I aim to make high-quality design resources more accessible and foster a community of innovators who embrace technology to redefine artistic boundaries.

### Qualifications

- Bachelor of Fine Arts in Animation (expected graduation: 2027)
   Edna Manley College of the Visual and Performing Arts
- Associate of Arts in Humanities Visual Communication (expected: 2025)
   Caribbean Examination Council (CXC)
- Associate of Science Industrial Technology (expected: 2025)
   Caribbean Examination Council (CXC)
- Associate of Science Information and Communication Technology (expected: 2025)
   Caribbean Examination Council (CXC)

### Core Values and Philosophy

I am passionate about advocating for the use of free and open-source software (FOSS) as a cornerstone of creativity, education, and innovation. By championing tools like FreeMoCap, Blender, and Krita, I aim to demonstrate the power of accessible software in filmmaking, animation, and design education. These tools provide opportunities for creators to explore their potential without financial barriers, fostering a culture of inclusivity and collaboration.

### Key Accomplishments

I look forward to contributing to the creative community by developing educational resources, participating in collaborative projects, and showcasing how open-source tools can revolutionize

### Professional Goals

- To refine my expertise in animation, graphic design, and 3D modeling through academic and practical experiences.
- To become a leading advocate for the integration of open-source tools in creative education and professional practices.
- To establish workshops and online platforms that empower individuals to use tools like Blender, FreeMoCap, and Krita for their creative pursuits
- To collaborate with global communities in developing innovative projects that merge art, technology, and storytelling.

Made with "Krita 5.3"

### "(ANM00) Animation - Artificially Generated Film Production"

Programme : Independent Animation Film Production

Department : Film

Prerequisite : CSEC® (Literature, Visual Arts, Theatre Arts, Music, Technical Drawing)

(CAPE® Performing Arts Unit 1 and 2 or satisfactory demo-reel/interview)

Type Of Course : Animation

Course Title : "Animation - Artificially Generated Animation Film Production"

Course Code : ANM00
Credits : 3
Year : Four (4)
Semester : Two (2)

Duration : 1 Semester, 15 weeks, 60 hrs (3 hrs per week)

Lecture Redistributor

Website.

: Israel Andrew Brown / Email: israelandrewbrown@proton.me

: github.com/israelandrewbrown/Artificially-Generated-Animation-Film-Production

Description :

This course leverages free and open-source artificial intelligence models and software to produce an animated short film. Building on foundational film composition (storytelling, storyboarding, animatics, and video editing skills), students will learn methods in artificial digital asset generation. Explore Al's role in streamlining 3D animation production pipelines. Understand and utilize 3D animation production techniques to effectively create, manage and compose artificially generated digital assets into a film. Troubleshoot common

Al-related issues in animation film production.

Required Equipment: Laptop (<16gb ram) (<256gb ssd), e-Mouse, Micro-phone, <50 mbps internet, Room,

Optional Equipment : GPU

: GPU, Graphics Tablet, Graphics Pencil, HDMI-HDMI Cable, Video Capture Card, 4 WebCam, 4 USB Cable, 3 Three Tripods, 1 Charuco Board, 1 Helmet (relevant) Optional Edge A.I. () (NVIDIA® GeForce® RTX ≤4060 ≤8gb) (MacOS [M2][M3][M4])

Objectives

- 1. Understand and utilize 3D animation production techniques to effectively generate, manage, & compose artificially generated digital assets into a film.
- 2. Understand how artificial intelligence models can address and resolve inefficiencies in 3D animation pipelines, improving overall productivity.
- 3. Identify, analyze, and resolve common issues arising from the use of artificial intelligence in film production.
- 4. Understand the limitations of automation in animation and film production, recognizing which roles are more challenging to automate and why.

Course Assessment: Please note, knowledge gained from this course will be assessed in the . . .

"(PRJ00) Project – Individual Project" by its receptive examiner.

Donate Bitcoin : bc1qdjsljjzj4x83v28ks0l3cvwdkqvhyfggzc2w8v

This course material is intended for educational use and is based on the author's current understanding of the subject matter. While the author has taken reasonable steps to ensure the accuracy of the information presented, the rapidly evolving nature of artificial intelligence and film production means that some details may become outdated. The information in this book is distributed on an "As Is" basis without warranty. While every precaution has been taken in the preparation of the book, the author shall not have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the instructions contained in this book or by the operating systems, large language models, image diffusion models, computer vision models, computer software and hardware products described in it.

### Week One

What is a film? What is "animation" and "twelve principles of animation"? What is "perspective"? What is the "animation pipeline"? What are the occupations on the "animation pipeline"? How to make "paper"/"charcoal" from wood? How to make a "bone flute"? How is "bronze" forged?

### Week Two

What is an algorithm? What is "Artificial Intelligence"? What is "software user documentation"? What is a Large Language Model (LLM)? What is stable diffusion? What is cv / pose detection? What is the "Chain-of-Thought" and "Zero-shot" generation?

What is a computer? What is an operating system? What is hardware and software?

What is "free and open source".? What are free and open source software licenses?

Why are the file formats [(.jpeg)(.stl)(.usd)(.ogg)(.FLAC)(.srt)(.glb)(.csv)(.openEXR)(.mkv)] used? What are references? What is "Glaze" software used for? What is "digital-watermarking"?

What is "Edge Artificial Intelligence"?

How to set up an "Edge Artificial Intelligence" workstation?

How to install relevant "free and open-source" models?

What is creative "control" and "freedom"?

What is a "production-meeting"?

(WebUI[Gradio]) (ComfyUI) (ollama)

Week Three

(Lecture) Story Development

(Tutorial) Character / Story Structure

(OpenWebUI [deepseek R1])

Eg. "pinokio.computer"

Week Four

(Lecture) Concept Development

(Tutorial) Visual Concept [Characters][Props][Set] (Flux 1-Schnell)

Week Five-to-Six

(Lecture) Audio Development

(Tutorial) Expressive Voice Over (Text-to-Speech) (RVC)(zonos-v0.1)([sesame/nari]csm)

(Tutorial) Subtitles (Whisper v3)

(Tutorial) Music Design (Audio-to-Audio) (YuE<sup>icl.</sup>) (DiffRhythm)

(Tutorial) Split Instrumentals/Vocal (Ultimate Vocal Remover V5)
(Tutorial) Audio-to-MIDI (NeuralNote[Spotify-Basic-Pito

(Tutorial)Audio-to-MIDI(NeuralNote[Spotify-Basic-Pitch])(Tutorial)Sound Effects(Stable Audio Open1.0) (MMAudio)

Week Seven-Eight

(Lecture) Composition Development (what-ai-cannot-do) (Blender 4.0) (Krita 5.2)

(Tutorial) (Animatics, FX, 2DFX[Fog, Smoke/Fire, Water], VFX Compositing, Video Editing)

Week Nine

(Lecture) Prop Development

(Tutorial) Image-to-3dMesh [Characters][Props][Set] (Hunyuan 3D-2)(Hi3DGen)(TripoSG)

(Tutorial) Image-to-Map-to-3dMesh [Set] (DepthAnythingV2)

Week Ten

(Lecture) Look Development

(Tutorial) Image Texture Generation[Characters][Props][Set] (Stable Diffusion 2.1)

Week Eleven-Thirteen

(Lecture) Motion Development

(Tutorial) "Face" - Motion Capture (FaceLandmarkerLinkV0.2)

(Tutorial) "Body" - Motion Capture (FreeMoCap v1.5)

(Tutorial) "Face/Body" - Pose Detection (Video/Image-to-Video) (Wan 2.1)

Week Fourteen:

(Tutorial) Troubleshooting common issues and using AI to optimize the production of a short film.

Week Fifteen:

(Critique) Showcase and review of completed projects.

Course Review : https://github.com/israelandrewbrown/Artificially-Generated-Animation-Film-Production

### Resources

israelandrewbrown.

"GitHub - Israelandrewbrown/Artificially-Generated-Animation-Film-Production: Animation Film Production." *GitHub*, 2025,

https://github.com/israelandrewbrown/Artificially-Generated-Animation-Film-Production.

"Artificially Generated Animation Film Production" *Youtube*, created by Israel Brown, February 02, 2025 <a href="https://www.youtube.com/playlist?list=PL4ouDzfxGIYQK1rhavaAFrcFhmsT137EK">https://www.youtube.com/playlist?list=PL4ouDzfxGIYQK1rhavaAFrcFhmsT137EK</a>
Accessed February 02, 2025





### **Bibliography**

"LEADERSHIP LAB: The Craft of Writing Effectively." YouTube, 26 June 2014, www.youtube.com/watch?v=vtlzMaLkCaM.
Accessed 7 May 2020.

"How to Build a Fictional World - Kate Messner." YouTube, 19 Jan 2014 www.youtube.com/watch?v=ZQTQSbjecLg&ab\_channel=TED-Ed.

"How to write descriptively - Nalo Hopkinson" YouTube, 15 Nov 2015

freeCodeCamp.org. "Prompt Engineering Tutorial – Master ChatGPT and LLM Responses." *YouTube*, 5 Sept. 2023, <a href="https://www.youtube.com/watch?v=\_ZvnD73m40o&ab\_channel=freeCodeCamp.org">https://www.youtube.com/watch?v=\_ZvnD73m40o&ab\_channel=freeCodeCamp.org</a>
Accessed 11 Feb. 2025.

Tyler Edlin. "Mastering the Design Pipeline." YouTube, 14 Dec. 2024, https://www.youtube.com/watch?v= 15SIWLGQEU&ab channel=TylerEdlin. Accessed 11 Feb. 2025.

Tyler Edlin. "The BEST Environment Design EXERCISE for BEGINNERS." *YouTube*, 1 Mar. 2019, <a href="https://www.youtube.com/watch?v=mhvtuZIEV">https://www.youtube.com/watch?v=mhvtuZIEV</a> Q&ab channel=TylerEdlin. Accessed 11 Feb. 2025.

Tyler Edlin. "DESIGN BETTER CHARACTERS: Essential Fundamentals." YouTube, 11 Oct. 2024, https://www.youtube.com/watch?v=9AgGCtfbuLs&ab\_channel=TylerEdlin Accessed 11 Feb. 2025.

FZDSCHOOL. "Design Cinema - Episode 110 - What Al Cannot Do." YouTube, 13 Apr. 2024, https://www.youtube.com/watch?v=QTj1Y4JW-KI&ab\_channel=FZDSCHOOL Accessed 16 May 2024.

MTM College. "Intro to Environment Design with Donna Johnson." YouTube, 19 Nov. 2024, https://www.youtube.com/watch?v=mfiklFOBowA&ab\_channel=MTMCollege.
Accessed 11 Feb. 2025

MTM College. "How to Design Props & Sets That Tell a Story!" YouTube, 4 Feb. 2025, https://www.youtube.com/watch?v=69pQq\_OndQA&ab\_channel=MTMCollege.

MTM College. "Colour and Light for Environments with Donna Johnson." YouTube, 15 Jan. 2025, https://www.youtube.com/watch?v=R33pofqY9vQ&ab\_channel=MTMCollege\_Accessed 11 Feb. 2025.

MTM College. "Mastering Comic Page Design: How to Craft Dynamic Comic Pages." YouTube, 21 Feb. 2025, www.youtube.com/watch?v=lg\_uzkEwCOk.
Accessed 21 Feb. 2025.

MTM College. "Blender Basics: Master 3D Modeling in This Masterclass with Sonia Gutierrez." YouTube, 23 Dec. 2024, <a href="https://www.youtube.com/watch?v=y8dJvttK4fg&ab\_channel=MTMCollege.">https://www.youtube.com/watch?v=y8dJvttK4fg&ab\_channel=MTMCollege.</a>
Accessed 11 Feb. 2025.

Woochia - Charly Sauret. "Music Theory COMPLETE Course - EVERYTHING You Need to Know." *YouTube*, 16 Feb. 2022, <a href="https://www.youtube.com/watch?v=\_VvKeiwddPl&ab\_channel=Woochia-CharlySauret\_">https://www.youtube.com/watch?v=\_VvKeiwddPl&ab\_channel=Woochia-CharlySauret\_</a>. Accessed 11 Feb. 2025.

freeCodeCamp.org. "Music Production for Beginners – FL Studio Course [2024]." YouTube, 10 Sept. 2024, <a href="https://www.youtube.com/watch?v=UnjKWSlwZWM&ab">https://www.youtube.com/watch?v=UnjKWSlwZWM&ab</a> channel=freeCodeCamp.org. Accessed 26 Nov. 2024.

Goobster's Room. "Every Major Audio Effect Explained in 8 Minutes!" YouTube, 16 Mar. 2025, <a href="https://www.youtube.com/watch?v=JGGnla8RKP4">www.youtube.com/watch?v=JGGnla8RKP4</a>. Accessed 12 Apr. 2025.

Rokoko. "Everything You Need to Know about MOCAP | Inertial, Optical, Al Rokoko Office Hours." YouTube, 14 Sept. 2023, <a href="https://www.youtube.com/live/C\_pT\_EtZYto">https://www.youtube.com/live/C\_pT\_EtZYto</a>. Accessed 11. Feb. 2025.

Jon Matthis. "HMN25-03 - FreeMoCap Data Collection." YouTube, 3 Feb. 2025, https://www.youtube.com/watch?v=ezeMpNFrZ4c&ab\_channel=JonMatthis. Accessed 11 Feb. 2025.

### "The Six Essential Roles On The New Pipeline"

**Director** is responsible for designing sets, overseeing construction workers and other artists, and playing a part in figuring out the overall aesthetic of a movie production.

Bendard, Mike. "What Is an Art Director in Film — Job Description Explained." Studiobinder, 4 July 2024, <a href="https://www.studiobinder.com/blog/what-is-an-art-director-in-film-job-description/">www.studiobinder.com/blog/what-is-an-art-director-in-film-job-description/</a>. Accessed 26 Feb. 2025.

A **Technical Artist** (Programmer) helps video game development teams create interactive, visually appealing games for consoles and apps. They use both artistic and coding skills to integrate artwork and animation into complex game systems and film.

"Technical Artist: Definition, Duties, Skills and Salary." Indeed, 2 July 2024, www.indeed.com/career-advice/finding-a-job/what-is-technical-artist. Accessed 26 Feb. 2025.

Story Concept Audio Props Look	Movement
--------------------------------	----------

**Artificial Intelligence Operator** (Developer) is a professional who designs, trains, and monitors AI systems. They work as a liaison between human operators and AI systems, ensuring that AI systems are integrated into existing workflows.

O'Brien, Keith, and Amanda Downie. "Al Workflow." IBM, 11 Nov. 2024, <a href="https://www.ibm.com/think/topics/ai-workflow">www.ibm.com/think/topics/ai-workflow</a>.

Accessed 26 Feb. 2025.

An **animatic artist** creates animatics, which are sequences of images, shots, or sketches that are used to plan a video. Animatics are used in many fields, including animation, television commercials, and movie production. Animatics are a technique that comes after storyboarding, and they can help ensure that a project is on track and will be effective. They can be used to: see how the final product might look. Give a rough draft of how a particular idea will play out. Animatics are usually made by editing storyboard images together with dialogue, sound effects, and music.

Dunham, Brent. "What is an Animatic — How To Bring Your Storyboard to Life" *Studiobinder.*, 21 May 2023 <a href="https://www.studiobinder.com/blog/what-is-an-animatic-definition/">https://www.studiobinder.com/blog/what-is-an-animatic-definition/</a> Accessed 26 Feb. 2025.

**VFX Compositing artists** is the last piece of the puzzle you need to make effects look realistic. It combines the work of animators, videographers, and special effects artists to create effects that blur the line between fiction and reality.

"What Is VFX Compositing?" Adobe, www.adobe.com/creativecloud/video/hub/guides/what-is-vfx-compositing.html. Accessed 26 Feb. 2025.

A **video editor** uses scenes, takes, and shots to create a cohesive story for the screen. Editors use continuity editing, cutaways, and transitions to evoke certain emotions from the viewer and properly execute an entertaining plot. Video editors for film cut a scene from different angles, which directs the viewer to certain details in a story.

Staff, Coursera. "What Is Video Editing?" Coursera, 2024, <a href="https://www.coursera.org/articles/what-is-video-editing">www.coursera.org/articles/what-is-video-editing</a>. Accessed 26 Feb. 2025.

### **Artificially Generated Animation Film Production**

israelandrewbrown.

"GitHub - Israelandrewbrown/Artificially-Generated-Animation-Film-Production: Animation Film Production." GitHub, 2025,

https://github.com/israelandrewbrown/Artificially-Generated-Animation-Film-Production.

"Artificially Generated Animation Film Production" Youtube, created by Israel Brown, February 02, 2025 <a href="https://www.youtube.com/playlist?list=PL4ouDzfxGIYQK1rhavaAFrcFhmsT137EK">https://www.youtube.com/playlist?list=PL4ouDzfxGIYQK1rhavaAFrcFhmsT137EK</a> Accessed February 02, 2025

Generative Artificial Intelligence Models (Software User Documentation)			
Model Name License		Official Github Repository	
Deepseek R1	MIT	https://github.com/deepseek-ai/DeepSeek-R1	
Llama 3.2	Community	https://github.com/meta-llama/llama3	
Flux 1-Schnell	Apache 2.0	https://github.com/black-forest-labs/flux	
Stable Diffusion 2.1	MIT	https://github.com/Stability-Al/stablediffusion	
zonos-v0.1	Apache 2.0	https://github.com/Zyphra/Zonos	
sesame-csm NariLabs-csm-dia "cpu"	Apache 2.0	https://github.com/SesameAlLabs/csm https://github.com/nari-labs/dia	
RVC	MIT	https://github.com/RVC-Project/Retrieval-based-Voice-Conversion-WebUI	
Whisper	MIT	https://github.com/openai/whisper	
YuE <sup>ICL</sup> (audio-to-audio)	Apache 2.0	https://github.com/multimodal-art-projection/YuE	
DiffRhythm (audio-to-audio)	Apache 2.0	https://github.com/ASLP-lab/DiffRhythm	
Ultimate Vocal Remover	MIT	https://github.com/Anjok07/ultimatevocalremovergui	
Spotify-Basic-Pitch	Apache 2.0	https://github.com/spotify/basic-pitch	
Stable Audio Open 1.0	Stability AI Community	https://github.com/Stability-Al/stable-audio-tools	
MMAudio	MIT	https://github.com/hkchengrex/MMAudio	
DepthAnything V2	Apache 2.0	https://github.com/DepthAnything/Depth-Anything-V2	
Tencent-Hunyuan 3D-2	Tencent Community	https://github.com/Tencent/Hunyuan3D-2	
Hi3DGen	MIT	https://github.com/Stable-X/Hi3DGen	
TripoSG (CPU)	МІТ	https://github.com/VAST-Al-Research/TripoSG	
Wan 2.1 (Image-to-Video)	Apache 2.0	https://github.com/Wan-Video/Wan2.1	
Mediapipe	Apache 2.0	https://github.com/google-ai-edge/mediapipe	
OpenCV	Apache 2.0	https://github.com/opencv/opencv	

### **Artificially Generated Animation Film Production**

israelandrewbrown.
"GitHub - Israelandrewbrown/Artificially-Generated-Animation-Film-Production: Animation Film Production."
GitHub, 2025,
https://github.com/israelandrewbrown/Artificially-Generated-Animation-Film-Production.

"Artificially Generated Animation Film Production" Youtube, created by Israel Brown, February 02, 2025 <a href="https://www.youtube.com/playlist?list=PL4ouDzfxGIYQK1rhavaAFrcFhmsT137EK">https://www.youtube.com/playlist?list=PL4ouDzfxGIYQK1rhavaAFrcFhmsT137EK</a>
Accessed February 02, 2025

Demonstration Spaces (Software As A Service [SaaS])			
Model Name	Links		
Deepseek R1	https://chat.deepseek.com/		
Llama 3.2	https://www.meta.ai/		
Flux 1 Schnell	https://huggingface.co/spaces/black-forest-labs/FLUX.1-schnell		
Stable Diffusion 2.1	https://huggingface.co/spaces/stabilityai/stable-diffusion		
zonos-v0.1	https://huggingface.co/spaces/Steveeeeeeen/Zonos		
sesame-csm NariLabs-csm-dia	https://www.sesame.com/research/crossing_the_uncanny_valley_of_voice https://huggingface.co/spaces/nari-labs/Dia-1.6B		
RVC	https://huggingface.co/spaces/Clebersla/RVC V2 Huggingface Version		
Whisper	https://huggingface.co/spaces/openai/whisper		
YuE <sup>ICL</sup> (audio-to-audio)	https://huggingface.co/spaces/innova-ai/YuE-music-generator-demo		
DiffRhythm (audio-to-audio)	https://huggingface.co/spaces/ASLP-lab/DiffRhythm		
Ultimate Vocal Remover V5	https://github.com/Anjok07/ultimatevocalremovergui		
Neural Note [SpotifyBasicPitch]	https://basicpitch.spotify.com/		
Stable Audio Open 1.0	*runs-on-high-grade-hardware (<8gb ram)		
MMAudio	https://huggingface.co/spaces/hkchengrex/MMAudio		
krita-ai-diffusion	https://github.com/Acly/krita-ai-diffusion		
DepthAnything V2	https://huggingface.co/spaces/depth-anything/Depth-Anything-V2		
Tencent-Hunyuan 3D-2	https://huggingface.co/spaces/tencent/Hunyuan3D-2		
Hi3DGen	https://huggingface.co/spaces/Stable-X/Hi3DGen		
TripoSG (CPU)	https://huggingface.co/spaces/VAST-AI/TripoSG		
Wan 2.1 (Image-to-Video)	*runs-on-high-grade-hardware (<8gb vram)		
FreeMoCap	https://github.com/freemocap/freemocap *runs-on-low-grade-hardware ( <a>4</a> gb ram)		
Face_LandMark_Link	https://github.com/Qaanaaq/Face Landmark Link *runs-on-low-grade-hardware (<4gb ram)		
*These links are subject to dea	octivation by their respective owners. (accessed February 11, 2025)		

Useful Links (Compatible with "Blender 4.0" "Krita 5.2.3") https://drive.proton.me/urls/G56G4M5C9R#RxYnZ4MHGMXX

StoryLiner	(Animatics)	(MIT Licence)	SaveSelection(Export-Import[.blend])(GPL-3.0 license)
https://superhivemarket.com/products/storyliner			https://github.com/riouxr/SaveSelection

QRemeshify (Quad-Remesher) (GPL-3.0 license) https://github.com/ksami/QRemeshify/releases/tag/1.1.0	PolyQuilt (Retopology) (GPL-3.0 license) https://github.com/AIGODLIKE/PolyQuilt	
OkTopo-Remesher (Retopology) (MIT Licence) https://yegorkumachov.gumroad.com/l/oktopo	AutoUV (UV Unwrapper) (custom license) https://www.quelsolaar.com/ministry_of_flat/	

fSpy (Projection) (GPL-3.0 license) https://fspy.io/   https://github.com/stuffmatic/fSpy-Blender	DeepBump (Image-to-NormalMap) (GPL-3.0 license) https://github.com/HugoTini/DeepBump
<b>Zform</b> (Map-to-Mesh) ( <i>MIT Licence</i> ) <a href="https://superhivemarket.com/products/zform">https://superhivemarket.com/products/zform</a>	Depth Map Batch (Image-to-DepthMap) (MIT Licence) https://superhivemarket.com/products/depth-map-batch-for-images

Ucupaint (Textures) (GPL-3.0 license) https://github.com/ucupumar/ucupaint		AutoReload (v2.0.3) (Blender-Krita Bridge) (GPL-3.0 license) https://github.com/samytichadou/Auto_Reload_Blender_addon	
Stable Project		Dream Textures [NVIDIA-only] [MacOS] (GPL-3.0 license) https://github.com/carson-katri/dream-textures	
Simple Bake	(Texture Baking)	(MIT Licence)	

Simple Bake (Texture Baking) (MIT Licence) https://superhivemarket.com/products/simplebake---simple-pbr-and-other-baking-in-blender-2

Auto-Rig Pro (Royalty-Free) https://superhivemarket.com/products/auto-rig-pro	AutoRigProRig-to-Rigify (ReMap) (MIT Licence) https://pymarket.gumroad.com/l/dnlix	
ShapeKeyGen v3.29 (MIT Licence) https://pymarket.gumroad.com/l/yrfsq	Faceit (MIT Licence) https://superhivemarket.com/products/faceit	
Livelinkface (csv-52ARkit) (MIT Licence) https://github.com/nmfisher/blender_livelinkface	Face_Landmark_link (Apache 2.0 License) https://github.com/Qaanaaq/Face_Landmark_Link	
FreeMoCap v1.5 (AGPL-3.0 license) https://github.com/freemocap/freemocap	BlendArMocap (FreeMoCap Rig to "Rigify")(GPL-3.0) https://github.com/cgtinker/BlendArMocap	
Dynamic Parent v2.0.2 (GPL-3.0 license) https://github.com/romanvolodin/dynamic parent	X-Pose Picker 4.0 (Royalty-Free) https://superhivemarket.com/products/x-pose-picker	
BonesSelector / AnimationLayers (MIT Licence) https://phihung250693.gumroad.com/l/iyutsk https://superhivemarket.com/products/animation-layers	Playblast (preview animation) (MIT Licence) https://superhivemarket.com/products/playblast https://github.com/RxLaboratory/DuBlast	

Blend Craft Compositor (Compositor)

https://superhivemarket.com/products/blend-craft-compositor-blender-plugin-by-3dt

(GPL-3.0 license)

InspirationTuts. "Free Blender Addons for Simulation and FX." YouTube, 17 Apr. 2025, <a href="https://www.youtube.com/watch?v=ajM8-Y9fDhY">www.youtube.com/watch?v=ajM8-Y9fDhY</a>.

Accessed 26 Apr. 2025.

	s (Compatible with "Blende ton.me/urls/G56G4M5C9R#F	
Freezing Effect Gene https://maroc777772.c	erator (Frost) gumroad.com/l/Freezing-Effect-0	(MIT Licence) Generator
	(Fog) et.com/products/alt-tab-easy-fog com/watch?v=su5uk38dYhA&ab	
Water Shader https://chuckcg.gumro	(Water) pad.com/l/sxbcnw	(MIT Licence)
Dynamic Rain https://cgcool.gumroa	(Rain) d.com/l/lxmii	(MIT Licence)
Particle-X https://superhivemark	(Particles) et.com/products/particles-x	(MIT Licence)
Dust Particles https://superhivemark	(Dust) et.com/products/dust-particles	(Royalty-Free)
Smoke Scatter https://cgcool.gumroa	(Smoke) d.com/l/ybsfu	(MIT Licence)
Fire Scatter https://cgcool.gumroa	(Fire) d.com/l/xrwyo	(MIT Licence)
Open Scatter https://superhivemark	(Object Scatter) et.com/products/openscatter	(MIT Licence)

Soft <mark>ware Website (Github</mark> )	License
7Zip ( <i>LGPL</i> , <i>BSD</i> 3-clause License) https://github.com/ip7z/7zip	mixed
Audacity https://github.com/audacity/audacity	GPL-3.0 license
BeeRef https://github.com/rbreu/beeref	GPL-3.0 license
Balena Etcher	Apache-2.0
https://github.com/balena-io/etcher	license
Blender	GPL-3.0
https://github.com/blender/blender	license
Musescore	GPL-3.0
https://github.com/musescore/MuseScore	license
Firefox	MPL-2.0
https://github.com/mozilla/	license
Comfy UI	GPL-3.0
https://github.com/comfyanonymous/ComfyUI	license
Docker	Apache-2.0
https://github.com/docker/docker-install	license
Electrum	MIT
https://github.com/spesmilo/electrum	license
Face_Landmark_link	Apache-2.0
https://github.com/Qaanaaq/Face_Landmark_Link	license
FFmpeg https://github.com/FFmpeg/FFmpeg	Mixed
FreeCAD https://github.com/FreeCAD/FreeCAD	LGPL license
FreeMoCap https://github.com/freemocap/freemocap	AGPL-3.0 license
fSpy	GPL-3.0
https://github.com/stuffmatic/fSpy-Blender	license
GIMP	GPL-3.0
https://github.com/GNOME/gimp	license
Godot https://github.com/godotengine/godot	MIT license
Git https://git-scm.com/downloads	GPL-2.0- license
HandBrake https://github.com/HandBrake/HandBrake	GPL-2.0 license
Inkscape https://github.com/inkscape/inkscape	GPL-2.0 license
Kdenlive	GPL-3.0
https://github.com/KDE/kdenlive	license

Krita https://github.com/KDE/krita	GPL-3.0 license
LibreCAD https://github.com/LibreCAD/LibreCAD	GPL-2.0 license
LibreOffice https://github.com/libreoffice	GPL-2.0 license
LMMS https://github.com/LMMS/lmms	GPL-2.0 license
Ollama https://github.com/ollama/ollama	MIT license
OBS Studio https://github.com/obsproject/obs-studio	GPL-2.0 license
OpenToonz https://github.com/opentoonz/opentoonz	BSD-3- Clause
Pinokio https://github.com/pinokiocomputer/pinokio	MIT license
Proton VPN https://github.com/ProtonVPN/win-app	GPL-3.0 license
PyCharm CE https://github.com/phracek/pycharm-community-edition	GPL-2.0 license
Python https://github.com/python/cpython	*mixed
qBittorrent https://github.com/qbittorrent/qBittorrent	GPL-2.0 license
Natron https://github.com/NatronGitHub/Natron	GPL-2.0 license
SumatraPDF https://github.com/sumatrapdfreader/sumatrapdf	GPL-3.0 license
Element https://github.com/kushview/element	Apache-2.0 license
Neural Note https://github.com/DamRsn/NeuralNote	Apache-2.0 license
TOR Browser https://github.com/TheTorProject/gettorbrowser	unknown
Trelby https://github.com/trelby/trelby	GPL-2.0 license
Ultimaker Cura https://github.com/Ultimaker/Cura	LGPL 3.0 license
VLC Media Player https://github.com/videolan/vlc	mixed
VS Code https://github.com/microsoft/vscode	MIT license
Ultimate Vocal Remover V5 https://github.com/Anjok07/ultimatevocalremovergui	MIT license

### Free and Open-Source Software (FOSS) For Artists - (Linux)

Firefox TOR Browser (Private Browsing) [slow] (Web Private Browser) [faster] https://www.mozilla.org/en-US/firefox/new/ https://www.torproject.org/download/ **Proton VPN** (Virtual Private Network [VPN]) **OBS Studio** (Broadcasting) https://account.protonypn.com/downloads https://obsproiect.com/download (Python) **qBittorrent** (File Sharing) Python https://www.gbittorrent.org/download https://www.python.org/downloads **VLC Media Player**(Media Player/Screen Recorder) **PyCharm** (Python IDE Community Edition) https://www.videolan.ora/vic/ https://www.jetbrains.com/pycharm/download Electrum (BTC Wallet) (Run Large Language Model [llm]) Ollama https://electrum.org/#download https://ollama.com/ **Libre Office** (Productivity Office Suite) ComfyUI (Image Generation) https://iwww.libreoffice.org/download/download-libreoffice/ https://www.comfy.org/ (run Windows app on MacOS/Linux) | Pinokio (one-click install Al Models) WineHQ https://wiki.winehg.org/Download https://pinokio.computer/ **Flameshot** (Reference Image Capture) BeeRef (Image Reference Projection) https://flameshot.orgi#download https://beeref.org/ **Trelby** (Screenplay Software) < (run WineHQ) > SumatraPDF (PDF, EHUB, CRB Reader) https://www.sumatrapdfreader.org/download https://www.trelbv.org/download/ (File Archiver) OpenToonz (2D animation software) https://opentoonz.github.io/e/ https://www.7-zip.org/download.html Handbrake (Render [for Krita]) (Video Transcoder) **Ffmpea** https://handbrake.fr/ https://ffmpeg.org/download.html KRITA (2D Visual Creativity Suite) (3D Visual Creativity Suite) Blender https://dev.krita.org/en/download/ https://www.blender.org/download/ LibreCAD (Drafter Architecture) FreeCAD (CAD Engineering) https://wiki.librecad.ora/index.php/Download https://www.freecad.org/downloads.php Ultimaker Cura (3D Printing) BalenaEtcher (Electronics) https://ultimaker.com/software/ultimaker-cura/ https://etcher.balena.io/ FreeMoCap (Motion Capture Technology) Face\_Landmark(Motion Capture Technology) https://github.com/Qaanaag/Face Landmark Link https://freemocap.org/ Natron (2D Compositing)(VFX) | Musescore (Music Notation) | Godot (Game Design Engine) https://natrongithub.io/ https://musescore.org/en/download https://godotengine.ora/download/windows Inkscape(Image Graphics [Vector]) | Element (Vst2-to-Vst3) | Kdenlive (Video Editor) https:/finkscape.org/ https://github.com/kushview/element https:/kdenlive.org/en/download/ LMMS (Music Design) | UltimateVocalRemover(Split) | Audacity (Audio Editor) | Neural Note (audio-to-midi) https://ilmms.jo/download | https://ultimatevocalremover.com | https://www.audacityteam.org | https://github.com/DamRsn/NeuralNote | Docker (Software Virtualization) Git (Version Control) . VS Code (Code IDE) https://code.visualstudio.com/download https://git-scm.com/downloads/linux https://www.docker.com/

### (PRJ00) Project - Individual Project

### Individual Short Film (1min - 3min)

### Pre-Production, Production and Post-production, Marketing and Distribution.

Students may also be granted an extension to finish their project during the summer semester. Individually produce a short film. This Project has five (5) sections.

Project at completion would contain the following.

### Section One - Pre-production

- 1. Treatment (Author, Title, Log-line, Synopsis, Characters)
- 2. Screenplay (Standard Formatting) (must use screenplay software)
- 3. Concept Art (characters three [3])
  - action poses,
  - face expressions,
  - turnarounds.
  - displaying the twelve [12] principles of animation.

Concept Art (props)

Concept Art (environments)

- 4. Shot List (scene no., shot no., shot type, shot descr., camera movement, Location)
- 5. Storyboard (colour coded characters, direct of movement, camera movement)
- 6. Story-Beats
- 7. Animatic (panel/keyframe, camera movement, sound effects and expressive voiceover)
- 8. Expenditure (human resources, software and budget)

### **Section Two - Production**

Files of the following artificially generated digital assets:

- 1. Assets -([Thumbnail] [Cover Art] [Title Card])
- (.jpeg)

2. Assets -(Characters and Props)

- (.usd) (.stl)
- (Expressive Voiceover, Subtitles, Sound Effects, Music) 3. Assets -
- (.FLAC)(.srt)
- 4. Assets -(Motion Capture Data [Input data, output data])
- (Scenes of Completed Short Film / Credits Sequence) (1-3 min) (.OpenEXR) 5. Assets -
- (Shots of Completed Short Film and Credits Sequence)(1-3 min) (.mkv) 6. Assets -

### **Section Three - Post-production**

- 1. Modification of "artificially generated digital assets".
- 2. Composition of "artificially generated digital assets" into a complete film.

### Selection Four - Marketing

- 1. Poster (YouTube Thumbnail) (Cover Art) (Title Card)
- 2. Studio Logo
- 3. Studio Website (Home, About, Contact [Studio and Workers], Merch [optional])
- 4. Credits Sequence (video and spreadsheet)
- 5. Behind-the-scenes Documentary
  - a. Teaser at the beginning and title card at end
  - b. Footage of some of the work being done.
  - c. Processes and visual breakdown of artificially generated digital assets.
  - d. Interview of the project manager/director/lecturer.

### **Section Five - Distribution**

YouTube® Channel Creation - Upload in order

- 1. Teaser Title Card (Thirty [10] seconds)
- 2. Teaser Short Film (Ten-Thirty [10-30] seconds)
- 3. Character Demo-Reels For each character (Concept Art) (three [3] videos)
- 4. Behind-the-scenes Documentary (<7 minutes)
- 5. Completed Short Film (1-3 minutes)

There should be seven (7) videos on the channel or profile at completion.

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