

# Jim Zhao

AI Artist, Technical Artist

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## Summary of Qualification

- Experience with After Effect composition and tool development
- Proficient with Photoshop and Nano Banana
- Strong experience with medical animation production and simulation.
- Proven cross-functional collaboration experience in industry projects.
- Strong Experience with VEO, Runway, Luma, Seedance and Kling
- Proficient in video editing with Premiere and Final Cut
- Experience with After Effect and Premiere tool development
- Experience with Houdini for VFX and simulation

## Work Experience

### 3D Medical Animation Technical Artist (Contract)

Barrow Neurological Institute, Dignity Health (Phoenix, AZ)

2025.11 – 2026.04

- **Introduced AI animation pipeline to the team to accelerate the production of medical storyboard, animation and simulation.**
- Architected a **Maya-to-After Effects tool for seamless keyframe data transfer** to support neuro-atlas animations.
- Built a **multi-threaded After Effects rendering tool to automate high-volume medical animation** workflows, saving 60% of rendering time
- Developed Houdini Digital Assets (HDA) for procedural drug dissolution simulation in high-end medical promotional videos.
- Engineered a Maya-Houdini toolset to automatically deploy procedural wrinkle deformers on animated medical models.
- Engineered an automated Maya tool calculating surface tension for dynamic, physics-based texture blending.
- Engineered a Maya Python vascular batch rigging tool with length preservation for realistic surgical simulations.
- Developed a shader management tool to automate verification and duplication for complex scene rendering.

### Medical Technical Artist

Lumis Corp. (Pittsburgh, PA)

2024.05 – 2024.08, 2025.06 – 2025.11(Re-hired)

- Engineered anatomical rigs (skin, circulatory, organs) and animations in Maya and 3Ds Max for the AR medical training app, InSight Platform.
- Developed a Maya rigging tool to batch-generate skeletons for diverse patient demographics, saving production time by 60%.
- Scripted auto-rigging modules for complex vessel joint chains, reducing manual production time for animators by 70%
- Optimized asset integration between Maya and Unity, establishing standards for a team of artists and programmers to maintain stability.

### VFX Technical Artist Intern

Tencent Games Timi Studio

2022.06 – 2022.09

- Engineered a Unity liquid shader template for Call of Duty: Mobile's gun skin pipeline based on Gerstner wave and dynamic alpha clipping
- Developed character ability VFX (e.g., Ice Spike) with Substance Designer and Unreal Niagara system and implemented it into animations
- Established a PBR fabric material library via Substance-Unreal workflows, standardizing assets across 3 FPS project teams.
- Collaborated with engineering and design teams to engineer dynamic environmental/UI VFX (rain, snow, lightning) in Unreal.
- Constructed lighting blueprints for "Nizhan: Future," optimizing the pipeline and reducing production iteration time by 20%.

## Project Experience

### R&D: AI Animation Reel | [AI Animation Series](#)

AI Animator

2026.02

- Developed an AI animation workflow utilizing **Veo, Runway, Luma and Seedance** to create various cinematic narratives
- Spearheaded character and asset prototyping using Gemini, executing precise iterations on cinematography to maintain visual continuity.
- **Engineered precise micro-simulations for medical visualizations**, ensuring scientific accuracy in particle collisions and fluid dynamics.
- Produced **high-impact visual content for sports and lifestyle sectors**, featuring complex actions and environmental simulations.
- Leveraged tech art expertise to engineer AI prompts, ensuring outputs adhere to complex physical behaviors and artistic logic.
- Refined AI assets, Edited the videos and finalized narratives using Photoshop, After Effects, and Premiere.

### AI Ad Spec | [Elevate the Everyday](#)

AI Animator

2026.03

- **Developed character, scene and product concepts via Gemini**, establishing visual identities and stylistic foundations for diverse ad specs.
- **Iterated costumes, action choreography, and camera framing** to ensure precise visual continuity across AI-generated sequences.
- Engineered an AI animation pipeline using **Veo, Runway, Luma and Seedance** to transform concepts into cinematic narratives.
- Applied tech art expertise to engineer AI prompts, ensuring complex particle behaviors and fluid dynamics adhere to scientific logic.

### AI Medical Animation | [AI Medical Animation Series](#)

AI Animator

2026.03

- Developed a medical AI animation workflow utilizing Veo, Runway, Luma, and Seedance for high-end clinical visualizations.
- Simulated Mechanism of Action for targeted therapies, benchmarking against Random42 and Mayo Clinic standards for scientific accuracy.
- Produced detailed simulations of organ functions and neurosurgical procedures, ensuring anatomical precision and visual consistency.
- Leveraged After Effects for advanced compositing and clinical data overlays to meet professional medical education standards.
- Composited external and internal anatomical structures in After Effects to create seamless, comprehensive medical visualizations.

## Education

### Master of Entertainment Technology | 2023.08 - 2025.05

Entertainment Technology Center, Carnegie Mellon University

- Focus: AI Animation, Game Development, VFX, Tool Development

### Bachelor of Digital Entertainment | 2018.09 - 2023.06

Communication University of China

- Focus: Game Development, Technical Art