

Jim Zhao



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Summary of Qualification

- Proficient with Unreal Engine VFX
- Proficient with Unity Game Development and VFX
- Proficient in Maya Characters, Props, Face, Vehicles Rigging
- Proficient with Unreal Engine Game Blueprint Development
- Strong skill at communication, collaboration and problem solving
- Experience in Unreal industrial pipeline
- Proficient in Maya Python Rigging Tool Development
- Strong Experience with Maya, 3ds Max and Houdini pipeline
- Extensive Experience with Call of Duty series
- Best Game Award in 2021 Epic China Game Jam

Work Experience

Lumis Corp. (Pittsburgh, PA)

Technical Artist Intern

2024.05 – 2024.08

- Created patient skin, muscle, circulatory, and organ rigging and animation in Maya for the AR medical training app, InSight Platform
- Developed a Maya rigging tool to batch-generate skeletons for patients of various types and genders, reducing production time by 90%
- Programmed stylized shaders for artery blood and alveolar shrinkage with a parametric control system for an organ visualization system
- Built a Maya blendshape and weight repair tool to improve the animation workflow, reducing time by 40%.
- Communicated with programmers, artists and 7 medical consultants in Miami and Pittsburgh to enhance alveolus and heart rigging

Tencent Games Timi Studio

Technical Artist Intern

2022.06 – 2022.09

- Developed a Unity liquid shader template for Call of Duty: Mobile's gun skin pipeline based on Gerstner wave and dynamic alpha clipping
- Created Crossfire's Unreal character ability VFX including Ice Spike and Hexagon Shield (used by 20000 players)
- Developed PBR fabric material asset library with Substance-Unreal/Unity pipeline used by 3 FPS project teams' character clothing
- Created Unreal map weather UI VFX including rain, snow, lightning with programmer and designer team
- Built Unreal light blueprints for indoor FPS map of Nizhan: Future, reduced 20% time in lighting production pipeline

Project Experience

Character Rigging | [Bakara Phantom Rigging/Animation](#)

Rigging Technical Artist/Animator

2023.12

- Created Maya rigging system containing limb IK/FK switch, space swap, limb twist joints motion
- Painted character skin weight and clothes weight
- Developed auto rigging tool with PyMEL for auto generating limb twist joints from custom UI, reduce 95% time
- Crafted animation in industrial pipeline with Maya-Substance-Unreal workflow

Maya Rigging Tool | [Procedural Muscle Joint Group Generation Tool](#)

Technical Artist/Programmer

2024.10

- Developed a Maya rigging tool to batch generate realistic joint-based muscle deformation group with python
- Build an edit mode for user to customize attachment locations for muscle joints
- Created procedural constraint and driven key module to simulate muscle bulges and deformation
- Crafted a realistic character's trapezius, teres major, deltoids, triceps brachii, biceps brachii, latissimus dorsi with the tool

Stylized Houdini – Unreal VFX | [Dark Hyper Beam](#)

Technic Artist/VFX Artist

2024.01

- Created procedural batch editable energy disk, beam and smoke model in Houdini
- Crafted stylized procedural textures in Substance Designer
- Developed Beam VFX with Unreal Niagara Ribbon, dynamic materials and Embergen Simulation, showed in Unreal Sequencer

Team 3D Action Game Project | [The Dream of Chained Sisyphus](#)

Programmer/Technical Artist | Team of 5

Communication University of China, 2022.01-2022.04

- Programmed gameplay and dynamic spring simulation and created level prototype
- Created character rigging and animation, and stylized environment assets in Blender-Substance-Unreal workflow

Realistic Houdini – Unreal VFX | [Time Swap with Force](#)

VFX Artist/Technical Artist

2023.04

- Created baked animation of fracture simulation and debris motion with Houdini RBD
- Implemented quantum fraction and wave vertex offset effect in Niagara

Team FACS Cartoon Facial Rigging / Animation | [Street Dancer](#)

Rigging Technical Artist | Team of 3

2023.10

- Developed Eye/Eyelid/Brow/Nose/Cheek/Mouth/Lip blendshape system controlled by custom Face UI
- Created stylized cartoon lattice deformation controlled by custom UI, use for animator

Education

Master of Entertainment Technology | Expected: 2025.05

Entertainment Technology Center, Carnegie Mellon University

- Focus: Game Development, Rigging, Tool Development

Bachelor of Digital Entertainment | 2018.09 - 2023.06

Communication University of China

- Focus: Game Development, Technical Art