


# Jim Zhao

Technical Artist, Rigger, Game Programmer

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## Summary of Qualification

- Proficient in Maya Characters, Props, Face, Vehicles Rigging
- Proficient in Maya Python Rigging Tool Development
- Strong skill at communication, collaboration and problem solving
- Experience in tool UI/UX design with Pyside and QT Designer
- Experience in industrial pipeline with Perforce and Git
- Proficient with Unreal Engine Blueprint and Unity Development
- Strong Experience with Maya and Houdini pipeline
- Best Game Award in 2021 Epic China Game Jam

## Work Experience

### Technical Artist Intern

Lumis Corp. (Pittsburgh, PA)

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

### Technical Artist Intern

Tencent Games Timi Studio

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

### 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

### Maya Python Rigging Tool | [Auto Ribbon Rig Tool](#)

Technical Artist/Programmer

2024.11

- Created system generating full ribbon rig containing joints, FK Ctrl's along customizable curve and ribbon deformer's
- Built procedural deformation containing Roll, Ripple, Twist, Sine and Bend used for tentacles, cloth ribbon and tail
- Developed UI system with Pyside and QT

### Maya Python Rigging Tool | [Procedural Track Tool](#)

Rigging Technical Artist/Animator

2024.01

- Created a procedural tool with a UI that can distribute segments to form a configurable track model and rig
- Developed module to generate ribbon, wheel control, global stretchable system and auto rotation based on driven key system

### Character Rigging | [T-Rex Control Rig](#)

Technical Artist/Rigger/Animator

2024.02

- Created realistic T-Rex rigging in Unreal Control Rig
- Developed limb IK/FK Switch, spine deformation based on spline IK and Tail FK/procedural dynamic joint chain switch

### Team Unreal 3D Action Game | [Rifts: Shadow's Ascent](#)

Programmer/Technical Artist | Team of 7

2024.09 – 2024.12

- Developed the core gameplay 'shadow step'(teleport to the nearest stealth area and enable invisible mode with designers)
- Set up character animation blueprint, cloth simulation, state machines and AI behavior tree by collaborating with artists
- Created and implement character VFX (silver frozen bullet, vampire strike, environment smoke)

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

Rigging Technical Artist | Team of 3

2024.10

- 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
- Built lighting and rendering in Unreal Engine

## 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