

Minghao Zhou

Assistant Professor of Game Development, SUNY Morrisville.
Technical artist working across rigging, animation systems, and real-time engine tooling.

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Education

2025	Carnegie Mellon University Master of Entertainment Technology Pittsburgh, PA — emphasis in technical art and game development
2023	School of the Art Institute of Chicago Bachelor of Fine Arts Chicago, IL — emphasis in art and technology, new media art

Academic appointments

2026–present	State University of New York, Morrisville Assistant Professor of Game Development, tenure-track – Teach a four-section load in the Computer Information Technology department, serving the game programming B.Tech. alongside students from other computing majors. – Rebuilt or newly authored the curriculum for every course assigned, aligning project briefs with current engine and toolchain practice.
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Teaching

SUNY Morrisville, Fall 2026 — 4 sections, 48 students

CITA 113 23 students	Introduction to Game Design and Development Two sections — GameMaker – Rebuilt the syllabus, lecture material, and project briefs for the program's entry-level course.
CITA 255 19 students	Application Development One section — C# and .NET MAUI – Built the course from scratch, replacing the previous platform with C# on .NET MAUI so that students work in a front-end framework used in industry. – Chose C# deliberately to reinforce the language students already encounter in the Unity sequence, letting application development and game development strengthen each other rather than sitting apart. Serves both game programming students and other computing majors.
CITA 386 6 students	Game Interface Design One section — Figma and Unity – Redesigned the course from a Figma-only design exercise into a full pipeline, carrying students from interface design through implementation inside a game engine.

Carnegie Mellon University

2024–2025

Carnegie Mellon University, Entertainment Technology Center

Teaching Assistant — Technical Character Animation; Advanced 3D Pipeline

Pittsburgh, PA

- Planned and taught a full class session in Advanced 3D Pipeline on authoring production tools in Maya with Python and MEL.
- Diagnosed rigging and pipeline failures in Maya and Unreal Engine for students across two production-focused graduate courses.
- Delivered critiques on student 3D animation work in review sessions.
- Maintained the course website and shared technical resources.

Industry experience

2025–present

Erosoft Studio

Founder and Game Developer

- Building a character-driven puzzle game in Unreal Engine 5, currently pre-release: art assets, character modeling, rigging, animation, and gameplay programming in C++ and Blueprint.
- Advise outside studios and developers on UE5 animation systems, Maya character rigging, AI workflow integration, and tool development.

2022

Tencent

Technical Artist

Shenzhen, China

- Contributed to development, testing, optimization, and documentation of an in-house modular rigging system in Maya.
- Researched and benchmarked existing modular rigging systems to inform the in-house design.
- Built character rigs for motion-capture pipeline testing, and authored procedural animation tools in Maya.
- Supported development and testing of an original 3D engine.
- Standardized naming conventions and transfer processes across the studio's multi-software 3D pipeline.

2021–2022

Lilith Games

Technical Designer Intern

Shanghai, China

- Implemented, optimized, and debugged gameplay mechanics and animation behavior in UE4 Blueprint and C++ for Farlight 84, a cross-platform mobile and PC shooter.
- Implemented in-game character animation and helped maintain the animation system.
- Contributed to the design of a new game mode.

2021

Snow Yunxue Fu Art Studio

Technical Artist

New York, NY — remote

- Contributed to Run – Valley City, an interactive art game by Snow Yunxue Fu built in Unreal Engine, using Maya, ZBrush, Marvelous Designer, and MetaHuman. Credited on the work; later exhibited at Chongqing Times Art Museum (see Releases and exhibitions).
- Researched MetaHuman production pipelines and motion-capture and digital character technology.

Selected projects

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| 2024 | Penguin Action Toolkit
Engineer and Technical Designer <ul style="list-style-type: none">- Semester-long team project building an accessible, extensible action-game framework in Unity; released publicly, listed under Releases and exhibitions.- Built a node-based GUI editor tool modeled on the Unreal Engine Blueprint system, and contributed to the animation and behavior tree architecture.- Created character rigs and animations for the sample content. |
| 2024 | Kraken Unleashed
Technical Artist <ul style="list-style-type: none">- PBR-workflow 3D animation production in Unreal Engine 5 for Advanced Pipeline Topics.- Built and iterated a complex creature rig, and produced the accompanying animation, VFX, and environment work.- Wrote a Maya plugin for rapid ribbon-IK setup. |
| 2024 | Animal POV: Climate Challenge
Technical Artist <ul style="list-style-type: none">- Semester-long VR simulation game in Unity.- Built and iterated the eagle character rig, animated in Maya, and authored the animation state machine in Unity. |
| 2023–2024 | Building Virtual Worlds
Technical Artist <ul style="list-style-type: none">- Four two-week VR productions on compressed schedules.- Made art direction decisions and produced models, textures, and animation for each round. |

Honors and awards

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| SAIC | <ul style="list-style-type: none">- Merit Scholarship- Parents and Family Council Award |
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Releases and exhibitions

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| 2024 | Penguin Action Toolkit
Unity action-game framework — released on the Unity Asset Store as <i>Penguin ARPG Toolkit</i> , November 2024
Team Patpat, Carnegie Mellon University Entertainment Technology Center, Fall 2024 <ul style="list-style-type: none">- Six-person team project advised by Dave Culyba and Tom Corbett. Contributed the node-based GUI editor tool, the animation and behavior tree architecture, and character rigs and animations.- Free, publicly distributed package for Unity 2022.3 and URP, shipped with documentation, tutorials, and sample content. Team members: Jinyi Dai, Wuji Cao, Yanchen Hu, Yiran Zhang, Yuanheng Qu.- Asset Store: assetstore.unity.com/packages/templates/systems/penguin-arpg-toolkit-302387- Project site: projects.etc.cmu.edu/patpat · ETC case study: etc.cmu.edu/our-work/projects/funder/patpat |
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2023

The 003*

Technical Artist (CGI) — commercial animation for WallpaperSTORE*, Suzhou, China

Presented by WallpaperSTORE* and CANGJIE; 2D animation by P.STUDIO. Credited in the released film.

- One of two artists responsible for the film's entire 3D portion, covering environment design, modeling, and shot design.
- Provided technical support to the other 3D artists on a distributed freelance team working without a shared studio pipeline.
- Documentation: vimeo.com/877010253

2023

Run – Valley City

Art game by Snow Yunxue Fu — credited as Studio Assistant

Exhibited in *Let's Entertain*, Chongqing Times Art Museum, Chongqing, China, summer 2023

- Group exhibition of digital and interactive work by 19 international multimedia artists, curated by Raiden Inst.
- Work and credit: snowyunxuefu.com — [Run – Valley City](#)
- Exhibition: snowyunxuefu.com — [Times Art Museum, Chongqing](#)

2023

Silt Symphony

Digital installation — Spring Undergraduate Exhibition, April 7–15, 2023

SAIC Galleries, 33 E. Washington St., Chicago, IL

- Documentation: youtube.com/watch?v=Ch0Z9n4zCUY

Technical skills

Rigging and animation	Maya, MotionBuilder, Houdini, motion capture, procedural animation
Programming	Python, OpenMaya, Qt, C++, C#
Engines	Unreal Engine 4 and 5, Unity, .NET MAUI, GameMaker
Simulation and VFX	nCloth, XGen, Niagara, Houdini, Marvelous Designer
Modeling and look development	Hard-surface modeling, sculpting, texturing, lighting
Foundations	Computer graphics, linear algebra, calculus