Xuanhao Mei

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Competencies

Skills: Unreal Engine 5, Unity, Niagara, VFX Graph, Blueprint, Gameplay Ability System, Materials, HLSL, Optimization

Tools: Houdini, Maya, Substance Painter, Substance Designer, Photoshop, ZBrush

Focus: Real-time VFX, Technical Art, Shader Development, Gameplay-Driven Effects

Experience

Technical/VFX Artist, *Toad Mountain Games* **May 2026 – Sep 2026**

- Developed water VFX, including splashes and ripples, using Scene Capture and render targets
- Created gameplay-driven effects including speed lines, camera distortion, projectile trails, explosions, checkpoint indicators, and boss VFX
- Optimized real-time VFX through GPU profiling, system iteration, and targeted rendering improvements

Technical/VFX Artist, *3 Squared Cubed Games* **Aug 2025 – May 2026**

- Collaborated with the engineering team to establish a standardized GAS pipeline for VFX, animation, and character movement, improving integration consistency across gameplay systems
- Developed Blueprint-driven VFX covering character abilities and environmental interactive effects
- Optimized VFX and related systems to meet cross-platform performance constraints, while documenting platform-specific limitations and best practices for stable implementation

VFX Intern, *Tencent Games* **May 2025 – Aug 2025**

- Assisted the VFX team in producing stylized gameplay effects, including slashes, projectiles, and fantasy spell effects
- Refined stylized VFX timing, value grouping, volume, and visual hierarchy based on lead feedback
- Optimized in-game VFX by analyzing overdraw, CPU particle cost, and shader complexity

Personal Technical Art Projects

Interactive Scan Post-Process Effect **Jan 2025 – Mar 2026**

- Created a real-time scan post-process effect in Unreal Engine with reusable shader and Blueprint systems
- Developed modular material logic for world-space pattern generation, radial scan propagation, pixelation, and outline enhancement
- Built a Blueprint-based controller with state-driven timing logic to ensure consistent triggering, transition control, and reusable effect behavior
- Integrated Material Parameter Collections to bridge gameplay logic and shader behavior for synchronized runtime control

Real-Time Cyclone Ability Effect **Nov 2025 – Dec 2025**

- Created a real-time cyclone ability effect in Unreal Engine with a multi-phase gameplay-driven VFX pipeline
- Built Blueprint and Gameplay Ability System logic to coordinate spawning, absorption, and phase transitions across the full cyclone ability flow
- Developed custom Niagara modules for procedural spiral lightning generation using time-based trigonometric controls and Beam bindings
- Implemented a custom Blueprint module to feed real-time data into particle systems to control particle behavior

Education

University of Utah, Master of Entertainment Arts and Engineering (GPA 3.85/4.0) **Aug 2024 – May 2026**

University of Utah, Bachelor of Science in Games (GPA 3.9/4.0) **Aug 2020 – May 2024**