

Andy Xiao

Creative Technologist • AI Systems & Tooling • Technical Art

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SUMMARY

Creative technologist with 15+ years bridging art and engineering at Bungie, Sucker Punch, Unity, and Meta Reality Labs, now focused on AI systems and tooling. At Meta, led agentic AI adoption for the art team: ran a workshop on agent architecture, built infrastructure that let non-engineers run the internal agent framework, and evaluated generative 3D and image output. Independently, built a self-hosted local-LLM agent platform and Mememage, an open-source image-provenance system shipped as PyPI, npm, and ComfyUI packages.

CORE SKILLS

- **AI / ML systems** — local LLM serving (MLX, Qwen3.5), prompt-cache architecture, agent runtimes, capability and tool design for small models, evaluation harness design, knowledge extraction, diffusion pipelines (FLUX, ComfyUI)
- **Agent-assisted development** — Claude Code (daily use); designing agent pipelines that produce reviewable work; reviewing machine-generated code at scale
- **Programming** — C#, Python, C++ (working knowledge)
- **Real-time engines** — Unity (C#, scripting, VFX, shaders, tooling, profiling); Unreal (Blueprint, materials, Cascade, animation blueprint)
- **DCC and art** — Maya (modeling, UV layout, rigging, cloth and physics simulation), ZBrush, Photoshop, Illustrator, Premiere
- **Disciplines and production** — technical art direction, VFX, shader and look dev, tools and pipeline, optimization; Jira, ShotGrid, Git / GitHub Actions, Miro

INDEPENDENT WORK

Mememage — Creator & Maintainer

Open source • <https://mememage.art> • Jul 2026 – Present

Open-source provenance for generative images, built on the principle that creators should own their own data.

- Designed a 2-pixel-tall encoded bar that binds a content-addressed identity to an image and survives re-upload, recompression, and downscaling.
- Shipped on PyPI, npm, and the ComfyUI registry, plus a Chrome extension, a self-hostable mint server, and a zero-dependency web decoder.
- Designed image data signing with key rotation, revocation, and encrypted data fields.
- Kept Python and JavaScript packages in sync with automated tests.

Local LLM Agent Platform — Personal Project

Feb 2026 – Present

A self-hosted AI agent with chat, memory, vision, and image generation, all on a single 16 GB Mac mini.

- Self-hosted Qwen3.5-9B with vision on MLX, plus FLUX and Qwen-Image for art, with no cloud model in the conversation loop.
- Replaced a third-party agent framework with a custom runtime and a native SwiftUI macOS app for chat and control.
- Designed model-based request routing for a 9B model, with an eval harness that tests it through the real runtime.
- Built a SQLite knowledge graph that learns facts from conversations, asks about uncertain ones, and lets users correct them.
- Secured multi-user Discord chat with per-person privacy rules, enforced in code and verified by a red-team test run.

EXPERIENCE

Meta Reality Labs

Remote • May 2024 – Jul 2026

Creative Technologist

Aug 2025 – Jul 2026

- Led agentic AI adoption for the art team during Meta's company-wide AI push. Ran a workshop for artists and technical artists on agent architecture and on applying LLMs to ambiguous tasks, and remained the team's technical point of contact for agent work.
- Built the infrastructure that let a non-engineering team run the company's internal agent framework, which had to run on ephemeral instances because cross-functional partners have no persistent development servers. Adopted by **5–10 people** across the art team and a partner research team.
- Evaluated generative model output for 3D assets and images after the team moved under the GenAI organization.
- Made presentation videos and decks with generative AI tools.

Technical Artist

May 2024 – Aug 2025

- Built a runtime lighting model for Codec Avatars' Gaussian-splat avatars. Emulated the Unity lighting model and moved lighting data into a compute shader, shading the splats from scene lights and surface normals rather than baked-in illumination.
- Ported Meta Motivo's physics-based ragdoll web demo to XR and made it work with Codec Avatars, adding new ways to drive the ragdoll; Meta's robotics research subsequently used this work.
- Built proof-of-experience prototypes with the XR People Experience team: VFX look dev, XR implementation, future wearable demos, and Codebook animation retargeting.
- Advised the art team on AI tooling and on generative AI in production pipelines.

Unity Technologies

Staff Technical Artist, Emerging Technologies

Senior Technical Artist / Technical Art Director

Senior 3D Generalist / Technical Lead, Internal Productions

Bellevue, WA · Sep 2020 – Apr 2024

Oct 2023 – Apr 2024

Jan 2022 – Oct 2023

Sep 2020 – Dec 2021

- Drove R&D on experimental editor features with the Emerging Tech team — proofs of concept, feature planning, documentation, and validation of upcoming editor capabilities.
- Acted as the bridge between art and engineering on bleeding-edge technology, delivering solutions for clients worldwide; recommended artist tooling, content pipelines, and workflow improvements, drove best practices and engine and editor bug fixes, and created artist engagement plans that documented outcomes and built team identity.
- As Technical Lead on internal productions, delegated across a small team, took a sample game from concept to execution, and built internal tools to streamline the pipeline.

Selected projects

- **Prehistoric Planet Immersive** (Apple Vision Pro) — Technical Art Director: aligned the technical-art roadmap with Unity, built tools and discipline practices, managed tasks, and integrated and supported external teams.
- **SIGGRAPH 2023 “Orb”** — Senior TA: built the procedural animation workflow for the “Orb” AI chatbot demo.
- **Unite 2023 “Fantasy Kingdom”** — Senior TA: NPC modeling and texturing, NPC interaction VFX, character customization workflow.
- **Kerbal Space Program 2** — Senior Technical Artist: performance optimization.
- **Gigaya** sample game demo — Technical Lead; M3 — Senior 3D Generalist: validated Unity core tech in a small team.
- **Arkheron** — Senior TA: tools development and workflow optimization.

Bungie

Bellevue, WA · Feb 2013 – Oct 2019

3D Generalist (Spec Ops) / VFX Artist / Technical Designer

- Created signature moments across the Destiny franchise on an industry-leading team — in-game spectacle built with Maya simulation, shader effects, scripting, rigging, and runtime animation, owning placeholder-to-final VFX and gameplay prototyping.
- Designed and implemented endgame raid encounters and mechanics; built designer-friendly toolkits on in-house tools for rapid prototyping and in-game iteration.
- **Shipped:** Destiny and all expansions through Shadowkeep — The Dark Below, House of Wolves, The Taken King, Rise of Iron; Destiny 2: Forsaken, Annual Pass, Shadowkeep; Curse of Osiris (consultant). Credited on 8 Destiny releases, 2014–2025 (mobygames.com/person/445571).

Sucker Punch Productions

Bellevue, WA · Sep 2010 – Feb 2013

3D Environment Artist / 3D Generalist

- Contributed to environment, vehicle, and prop fidelity on inFAMOUS: Second Son (PS4) at industry-leading levels using next-gen hardware and rendering techniques; built gameplay and shader prototypes and the vehicle pipeline (rigging, modeling, texturing).
- inFAMOUS 2 and Festival of Blood (PS3): modeled and textured gameplay, cinematic, and user-generated-content assets; provided rigging and scripting support for the UGC feature; integrated environments for motion-capture cutscenes.

EARLIER EXPERIENCE

- **Requiem — Game Director** (2017–2024): solo-built twin-stick shooter, a new IP shipped to Steam closed beta — all planning, art, design, and engineering, including progression systems and Steam leaderboards, built in Unreal 4 with Blueprints.
- **Bungie (via Xiversity), Kirkland, WA — 3D Artist, CSG** (Jan – May 2010): modeled and textured cinematic and in-game assets and multiplayer medals for Halo: Reach; 3D art bug fixing and tracking.
- **Ignition Entertainment, Florida — Lead / 3D Environment Artist** (Nov 2008 – Jan 2010): managed outsourcing artists and built environment block-outs, props, and decals for an unannounced UE3 FPS (Xbox 360 / PS3), plus real-time destruction prototypes and in-game vignettes.
- **The Art Institute of Portland — Lab Technician** (2006–2008): tech support and troubleshooting for Photoshop, Illustrator, Maya, and Final Cut Pro.

EDUCATION

B.S., Game Art and Design — The Art Institute of Portland (2004–2008)

Languages — English, Cantonese, Mandarin (fluent). Featured in the Blizzard Entertainment Fan Art program.