FELICITY YICK

felicityyick@gmail.com
https://www.felicityyick.com
https://www.linkedin.com/in/felicity-yick/
San Francisco Bay Area, CA

ABOUT ME

Technical Artist & AI-Native Developer with 5+ years shipping immersive XR experiences at the intersection of art, engineering, and emerging AI workflows. Proven track record building production-ready asset pipelines and performance-critical real-time systems in Unreal Engine. Pioneering in the agentic creative tooling space, LLM pipeline architecture, and human-agent collaborative authoring environments that redefine how creators build and ship.

EXPERIENCE

Meta Reality Labs
San Francisco Bay Area, CA (Hybrid)

Technical Artist (Contract through Magnit) — Jan 2025 - Present

- Building an **AI-native mobile game creation platform** exploring human-agent collaborative authoring: designed context-aware LLM pipelines for sustained iteration, a **spatial direct-manipulation** edit mode to keep creator intent in sync with agent state, and an **A/B experimentation framework** grounding agentic features in measurable creator outcomes.
- Contributed across the **full AI product loop** — prompt architecture, tool design, creator UX, and evaluation — gaining end-to-end fluency in shipping LLM-powered features to real users.
- Shipped the switchable **Immersive Home (v85, Connect 2025)**. Owned **art ingestion, optimization, and shader development**, ensuring the five immersive environments met high visual quality bars while remaining within strict performance and memory constraints for Quest 2/3 headsets.
- Expanded, hardened, and **productionized** our internal **Unreal Engine 5.1 / 5.5 Python and C++ asset pipelines** to prepare assets for Meta's internal engines, including lightmap baking, **USD** export with LODs, packed texture workflows, and PBR/unlit material baking; enabled artists and external vendors to ship content reliably with minimal friction.
- Drive R&D investigations into **Gaussian Splatting**, prototyping rigid body animated splat demos to evaluate feasibility for immersive Home and future XR experiences

TikTok
San Francisco Bay Area, CA (In Person)

Mid-Level AR Interactive Engineer — Aug 2022 - Dec 2024

- Core engineer on TikTok Effect House's **"Create with AI"**, a platform feature enabling AI-assisted generation of AR effects; supported **10K+ effects**, primarily created by first-time users, materially reducing creator onboarding friction.
- Designed and built **a scalable, AI-driven system** for parameterized and gamified AR effects, implementing a modular TypeScript framework that auto-generates visual scripting logic to drive gameplay flow at scale.
- **Shipped 50+ high-impact AR effects** for organic and branded campaigns, reaching **10M+ users globally**, while consistently optimizing for strict mobile performance and device constraints.
- An amabssador for the Effect House team, serving as a lead speaker at **TikTok's first Open House**, presenting at conferences, and providing hands-on technical guidance and support to the global Effect House creator community.

University of Pennsylvania
Philadelphia, PA

Computer Graphics Research Intern — May 2019 - Aug 2020

- Contributed to a research project **simulating crowd processions** in ancient civilizations, developing a parameterized **3D/AR visualization system** for interactive exploration.
- Reconstructed a historically accurate 3D environment of Pachacamac, Peru, authoring **MEL/Python tooling** to convert SketchUp drawings into production-ready assets in Autodesk Maya and Unreal Engine 4.
- Built **interactive controls in UE4 (Blueprints)** enabling real-time manipulation of time-of-day, weather, and material decay, supporting rapid experimentation and visual analysis.
- **Modeled, textured, rigged, and animated** period-accurate clothing and characters, implementing idle and locomotion cycles to drive agent-based movement within the simulation.

PROJECTS

Procedural Terrariums
Tools: Houdini

- Using Houdini, designed and built a **procedural generation system** for terrariums, succulent plants, and décor, enabling highly customizable designs through seeded randomization and **artist-directed controls.**
- Implemented **painted-mask workflows** allowing users to explicitly define spawn regions for plant types and terrarium features, balancing procedural scalability with creative intent.

Mini Minecraft
Tools: C++, QtCreator, OpenGL

- Co-developed a 0 to 1 stylized replica of Minecraft, owning **procedural terrain generation** using noise functions, custom biome and texture systems, block animations, and efficient GPU rendering across multiple vertex buffer objects.

EDUCATION

University of Pennsylvania
B.S.E in Computer Graphics | GPA: 3.84

- Interdisciplinary major in computer science and visual arts

Involved in: Co-President of ACM SIGGRAPH chapter, Teaching Assitant (Computer Graphics, 3D Modelling)

TECHNICAL SKILLS

Prompt Engineering, Agentic Workflow Design, LLM Pipeline Architecture, Claude, Codex, JavaScript, TypeScript, GLSL, Lua, React, HTML/CSS, Java, Python, C++, Git, Perforce,

CREATIVE SKILLS

Autodesk Maya, ZBrush, Substance Painter, Adobe, Creative Suite, Unreal Engine ComfyUI, Houdini