Felicity Yick

Senior Technical Artist · AI Creative Tools · Pipelines

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EXPERIENCE

Meta Reality Labs
Jan 2025 – Present

Technical Artist (Contract through Magnit) · San Francisco Bay Area (Hybrid)

AI-native game creation platform

- Building a mobile game creation platform on frontier models where **making the game is the game**: creators co-create with an assistant agent inside the running game instead of a traditional editor.
- Co-architected the **runtime that makes co-creation possible**: multi-agent orchestration that generates gameplay, assets and tools on demand, with context-aware model pipelines deciding what the agent sees and can act on.
- Co-developed the **runtime tooling framework** (tool schemas, CLI, automated tests) that models use to generate in-game tools, asset editors and planning surfaces as creators need them, with permission requests as a guardrail.
- Connected agents to **procedural asset generators** and asset pipelines through MCP servers and tool APIs, so creators get editable, structured assets instead of one-off generations.
- Built an **A/B experimentation framework** testing agent features against creator outcomes, and the reliability layer (checkpoints, crash recovery, watcher agent) for multi-day agent runs.

Immersive Home · shipped at Meta Connect 2025

- Productionized Unreal Engine 5.1/5.5 asset pipelines (Python, C++, Blueprints) for artists and vendors: OpenUSD export with LODs, lightmap baking tuned for standalone VR, texture packing and atlasing, and PBR/unlit material baking. **Cut per-environment turnaround from ~4 months to ~1.**
- Owned art ingestion, optimization, shaders and materials for five environments within strict Quest 2/3 performance and memory budgets, **reducing package size by ~25% and frame time by ~30%**.

TikTok
Aug 2022 – Dec 2024

Mid-Level AR Interactive Engineer · San Francisco Bay Area

- Core engineer on Effect House's **"Create with AI"**: a modular TypeScript framework that turns a prompt into visual-scripting game logic. **10K+ AI-generated effects**, mostly from first-time creators.
- Shipped **50+ AR effects** for organic and branded campaigns (DreamWorks, Met Gala 2024) reaching **10M+ users**, with shader work and optimization for strict mobile performance limits.
- Lead speaker at TikTok's first Open House; demos at conferences and hands-on support for the global creator community.

PROJECTS

Houdini MCP server (open source) — Python · MCP · Houdini

- **35 tools** that let Claude inspect and edit a live or headless (hython) Houdini scene with guardrails (backups, dry runs, undo that stops at the artist's own edits, scoped writes), render and check its own work, and export USD and caches. Installs with pip.

Painted Ladies: Procedural SF Street — Houdini · VEX · Solaris/USD · Karma · MaterialX

- Procedural Victorian house HDA (**96 parameters, three architectural styles**) and a street system that lays any row of houses down a hill. Built about half by hand, then iterated with Claude through my MCP.

Synthetic Street Data — Solaris/USD · Karma AOVs · Python · COCO

- Turned the street into a labelled dataset generator: per-pixel class and instance labels, depth, normals, 3D boxes and camera intrinsics across seeds × cameras × lighting, with automatic QA.

SKILLS

AI & Agents: Multi-agent orchestration, MCP, tool use, context engineering, agent memory, evaluation, A/B testing, Claude Code, Codex

Engineering: Python, C++, TypeScript, JavaScript, React, GLSL, Blueprints, APIs, Git, Perforce, testing, Linux

Graphics: OpenUSD, Unreal Engine, Houdini (VEX, Solaris, Karma), MaterialX, shaders, lightmapping, optimization, Maya

EDUCATION

University of Pennsylvania · B.S.E. Computer Graphics · GPA 3.84 · 2022
Co-President, ACM SIGGRAPH chapter · TA: Computer Graphics, 3D Modeling