



Masterwork Studio LLC

CUSTOM 3D, SIMULATION & INTERACTIVE
VISUALIZATION

Mitchell Wierenga

Owner / Principal

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masterworkstudio.com

CORE COMPETENCIES

- **3D Environment & Asset Production** — Environments, terrain, and 3D asset production at multiple scales, from low-altitude maritime to low Earth orbit. Props, structures, and character assets for training, simulation, and visualization.
- **Real-Time Simulation Content** — Game-engine-grade 3D content optimized for interactive runtimes (Unity, Unreal, Three.js / WebGL).
- **AI Digital Humans & Avatar Systems** — Production TTS-driven, viseme-accurate lip-sync; conversational on-screen agents for web and training applications.
- **Custom 3D Software & Tooling** — Blender add-ons, pipeline automation, content-production tools, and custom exporters.
- **3D Web Applications** — Browser-delivered interactive 3D using Three.js and WebSocket multiplayer; mobile-optimized GLB pipelines.
- **Character Animation & Rigging** — Production-quality animation, motion editing, retargeting, bespoke rig development.
- **Full-Stack Software Development** — Node.js back-ends, REST APIs, payment infrastructure (Stripe), Linux VPS deployment, license-key authentication services.

DIFFERENTIATORS

- **Vertically integrated** — Asset creation, runtime engineering, web delivery, and AI integration handled in-house. Eliminates multi-vendor coordination overhead.
- **Shipping commercial AI avatar product** — Masterwork LipSync, a CC4-compatible AI lip-sync system, sold as a commercial subscription. Production-proven, not a research demo.
- **Scalable team** — Solo principal with established contractor team available for game-engine and large-scale simulation projects requiring expanded production capacity.
- **Lean cost structure** — No prime-contractor overhead markup, direct technical contact, fast iteration cycles.

PAST PERFORMANCE

3D Environment Production for U.S. Defense Program (2024, subcontract under NDA)
Delivered three high-fidelity environment scenes spanning multiple altitude regimes for a defense-sector simulation program: low-altitude maritime (under 100 ft), high-altitude maritime (~1 mile), and low Earth orbit with Earth model and orbital satellite asset. Subcontracted under prime contractor.

Masterwork LipSync — Commercial AI Digital Human System (Shipped 2026)
Designed, built, and shipped a production CC4-compatible AI lip-sync add-on with cloud-backed TTS, license-key authentication, and subscription billing infrastructure. Active commercial product.

AI Receptionist — Web-Deployed 3D Avatar Agent (Shipped 2026)
Production conversational 3D avatar deployed on masterworkstudio.com. Azure TTS, viseme-driven facial animation, and mobile-optimized GLB pipeline.

Masterwork VTT — Real-Time 3D Multiplayer Web Application (Self-published)
Custom Three.js / WebSocket virtual tabletop with server-authoritative simulation, Blender export pipeline, navmesh generation, and physics-based collision. Showcases full-stack 3D web capability.

COMPANY SNAPSHOT

Legal Entity

Masterwork Studio LLC

Location

Kennesaw, GA (Atlanta metro)

UEI

XMU9WHYAGRZ5

CAGE

20CL8

Business Type

Small Business, Single-Member LLC

SAM.gov

Registered

PRIMARY NAICS

541511

Custom Computer Programming

541715

Engineering R&D

541490

Other Specialized Design Svcs

541430

Graphic Design

611430

Training Services

TOOLS & TECHNOLOGIES

3D / Animation

Blender, iClone, Reallusion CC4

Game Engines

Unity, Unreal Engine

Real-Time Web

Three.js, WebGL, WebSocket

Backend / Cloud

Node.js, Python, Linux VPS

AI / Speech

Azure TTS, ElevenLabs, viseme engines

TARGET MARKETS

Federal training & simulation; defense subcontracting; education & e-learning; healthcare & medical simulation; government communications; state & local creative.