Difei Gao

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EDUCATION

New York University *Master of Science, Integrated Design and Media* Sep 2023 - May 2025
GPA: 3.87/4.0 | Courses: Virtual Production, Camera Capture, Creative Coding
Boston University *Bachelor of Science, Advertising; Visual Arts (minor)* Sep 2021 - May 2023
GPA: 3.89/4.0 | **Honors:** Class of 2023 Dean's List, BU Advertising Club's Best Group of 2022

PROFESSIONAL SUMMARY

Technical Artist focused on real-time cinematic production, environment building, and visual polish. I work across Unreal, Houdini, Maya, and ComfyUI to assemble lighting/VFX-ready scenes, integrate AI-generated assets, and guide visuals from layout to lookdev. Skilled in performance tuning, on-set troubleshooting, and cross-software workflows for immersive, stylized production.

PROJECTS

LED Virtual Production | *The Unity of Dual Essences*   UE5 • Blackmagic • ACES   Sep 2023 - Jan 2024
- Built real-time environments by sourcing, cleaning, and assembling assets; handled scale, pivot, LOD, and lighting for optimized LED playback.
- Designed atmospheric lighting using dynamic fog, shadows, and multi-source key light systems to match cinematic intent.
- Synced tracked physical camera with virtual camera via Live Link; operated OSC + UE Listener across machines for LED output and shot review.
- Led on-set integration of real and virtual props, with matched lighting and parallax for in-camera VFX using Blackmagic + Unreal composite preview.

Realtime Ride Prototype | *The Mysterious Beast of Natura*   UE5 • OSC/DMX   Jan 2024 - May 2024
- Created Niagara VFX and Blueprint logic synced with ride motion via OSC/DMX, enabling real-time haptics, screen events, and environmental effects.
- Built dynamic vehicle materials with swappable masks for rapid cosmetic variation; delivered smooth multi-device playback.
- Deployed at industry demo; achieved stable real-time sync across devices with zero frame drop.

Solo Narrative Game Demo | *Deeth*   UE5 • Blueprint • Perforce   June 2024 - May 2025
- Developed an atmospheric game demo showcased at NYU IDM Expo and selected for the IDM New Alumni Exhibition; led full pipeline from layout to interaction.
- Created 10+ modular assets with custom materials and stylized post-processing for visual consistency.
- Managed production in Perforce with tracked bugs, QA iterations, and stable public builds.

CORE SKILLS

Unreal Engine 5: Sequencer • Blueprint • AnimBP • Control Rig • Lumen • Niagara • Live Link • Camera Rig • Material Graph • World Partition
Realtime & Cinematics: Shot Design • Lighting & Look Dev • Performance Capture • In-Camera VFX • Virtual Production • OSC/DMX Integration • ComfyUI / AI LookDev
Pipeline & Integration: Asset Optimization • Modular Scene Building • Version Control (Perforce • Git • SVN) • Multi-DCC Workflow (Unreal • Houdini • Maya • Blender) • ACES/OCIO
Rendering & VFX: Stylized Post-Processing • Niagara VFX • Shader Creation • Substance Painter / Designer • Photogrammetry • Compositing Prep
Creative & Technical Tools: Python (workflow scripting) • C++ (basic) • Adobe CC (AE • PS • PR) • Figma • TouchDesigner (intro) • GitHub