

Andy DiLallo

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PROFESSIONAL SUMMARY

Unity Developer with 6+ years of hands-on experience building polished gameplay systems, interactive mechanics, and performance-optimized immersive experiences. Skilled in C# scripting, rapid prototyping, clean code architecture, and cross-functional collaboration with designers and artists. Proven ability to deliver engaging PC titles, manage asset integration, optimize runtime performance, and ship interactive media showcased internationally at IndieCade, SIGGRAPH, and A MAZE.

TECHNICAL SKILLS

- **Languages/Engines:** Unity3D, C#
- **Gameplay Systems:** Real-time mechanics, interactive UX/UI, procedural generation, DOTween, animator, state machines, scriptable objects
- **Optimization:** GPU/CPU profiling, Frame Debugger, Unity Profiler, texture management, Addressables, object pooling
- **Version Control:** Git, GitHub, Unity Packages
- **Tools & pipelines:** Jira, Figma, Blender, Adobe CC

PROFESSIONAL EXPERIENCE

Unity Developer (Full Time)

2023 - 2025

Cincinnati Children's Hospital Medical Center - Cincinnati, OH

- Developed interactive gameplay features and systems for a VR-based surgical simulation using Unity and C#, supporting multi-platform deployment and clinical use.
- Implemented robust Unity Weld MVVM architecture, optimized Addressables asset management, streamlined build workflows, automated Unity Cloud Build deployments, and maintained multiplayer server integration.
- Prototyped advanced Unity rendering solutions, including GPU instancing and volume rendering, ensuring high frame rates and responsive interactions for immersive gameplay experiences.
- Collaborated daily in agile sprints, participating in standups, iterative reviews, and proactively troubleshooting project risks and gameplay bugs.

Freelance Unity Developer (Part Time)

2019 - Present

Andy DiLallo LLC – Selected Projects

- **UnearthU** (Steam, iOS, Android): Developed engaging interactive UI, optimized animations, gameplay mechanics, and shaders; delivered a polished title optimized across multiple platforms, maintaining smooth performance and responsive gameplay.
- **Tikatmos** (IndieCade Winner): Implemented innovative voice-driven gameplay mechanics, custom shaders, stylized UI interactions, and real-time animation systems, contributing significantly to the game's award-winning design.
- **ROAMING.COM** (ZKM Center for Art & Media): Sole developer of modular gameplay systems, event-driven architectures, and responsive user interfaces; authored developer documentation and released codebase publicly, receiving international recognition.

- **Terminal Sequence** (Supermarket Art Fair): Authored chroma-key HLSL shaders enabling transparent video playback in WebGL; implemented object pooling and texture atlasing to reduce overdraw, boosting performance across builds.
- **Unplayable** (BMoCA): Implemented GOAP system and Unity LLM; Deployed multi-camera gameplay recording system with per-camera post-processing; implemented GPU-instanced terrain and FSR upscaling to optimize performance.
- **Museum of Science Fiction** (Steam): Built immersive, interactive gameplay systems; optimized performance through asset pipeline management, occlusion culling, and baked lighting, achieving consistent high frame rates on VR platforms.
- **Street Wise Arts** (Mobile AR): Developed interactive AR gameplay experiences optimized for iOS and Android, leveraging plane detection, lightweight shaders, and efficient scripting for smooth real-time interactions.

ADDITIONAL EXPERIENCE

Creative Fellow

2022 - 2023

ATLAS Institute B2 Center for Media Arts and Performance

- Constructed large-scale interactive installations using Unity, shaders, motion-tracking, and animation.
- Taught workshops on procedural materials, shader fundamentals, and VFX optimization.

Digital Arts Instructor

2020 - 2023

University of Colorado Boulder - Boulder, CO

- Designed and taught comprehensive Unity and interactive media courses, guiding students through game development, UX/UI implementation, and optimized asset workflows.

EDUCATION

MFA Digital Art Practices

2020 - 2023

University of Colorado Boulder - Boulder, CO

BA Electronic Music (magna cum laude)

2016 - 2019

University of California Santa Cruz - Santa Cruz, CA

HONORS/AWARDS

- Unity for Humanity Grant - *VR3S* (2024)
- IndieCade Official Selection - *Tikatmos* (2022)
- A MAZE Explorer Award Nominee - *UneathU* (2021)
- SIGGRAPH - *Resonant Waves* (2020)

SELECTED OPEN-SOURCE WORK AND PUBLICATIONS

- CommunityRule governance platform - GitLab (ongoing)
- Zenodo - technical paper and source code - *ROAMING.COM* (2025)
- Leonardo Journal, MIT Press - *Resonant Waves: Immersed in Geometry* (2020)