Bill Hayes

Creative Technologist / Senior Software Engineer

billhayes.dev | freshpolygons@gmail.com | LinkedIn

Software engineer with 14+ years of experience building games, real-time 3D applications, and developer tools. Deep experience in Unity and C#, with hands-on ownership from architecture and prototyping through iOS releases and production support. Recent work includes reusable gameplay systems, authoring tools, and AI workflow automation.

Professional Experience

Orc Powered Games LLC
Nov 2025 - Present

Founder / Independent Software Engineer

- Develop **Blightstorm**, a playable Unity action game with a public Steam page, alongside C#/.NET developer tools and reusable gameplay systems.
- Build desktop tools and automated workflows for PBR material production, quality review, packaging, and commercial publishing.

ObjectiveEd Inc.
Dec 2020 - Nov 2025

Lead Unity Developer

- Owned the Unity/C# engineering for commercial iOS educational apps, from architecture and API integration through optimization, QA, release, and production support.
- Architected a configurable curriculum app with **approximately 35 guided lessons and 15 interactive games**, enabling rebranding for multiple client deployments.
- Built a visual novel framework and Unity editor used to produce **approximately 10 titles**. Writers and QA staff could import scripts, configure characters and voices, and test content independently.
- Integrated Braille keyboard input with native Objective-C and Swift code, and connected Unity apps to existing authentication and account APIs.
- Managed signing, provisioning, build distribution, and releases through Xcode, App Store Connect, and TestFlight. Provided technical direction to outsourced developers.

Selected Projects

GameCore | Reusable Unity/C# gameplay framework covering inventory, quests, factions, combat abilities, and save/load.

Machine Elves | AI orchestration and developer tooling for coordinating agents, running configurable workflows, and connecting language models to software tools.

Professional Experience Continued

Raytheon Professional Services
Aug 2012 - Oct 2020

Business Programming Technologist II (Unity / VR Developer)

- Established an internal VR development capability through Unity prototypes for Oculus Rift, HTC Vive, and Leap Motion. Early demonstrations led to executive sponsorship, client presentations, and commercial VR work.
- Served as primary Unity/VR developer for simulations and training for **John Deere, General Motors/ACDelco, DTE Energy, and NCR**. Worked with subject matter experts to turn technical requirements into interactive training.
- Architected a multilingual John Deere training app that adapted detailed tractor CAD data for real-time use on Samsung Gear VR. The project became an **approximately $250K commercial engagement**.
- Developed simulations for automotive diagnostics, commercial driving, and ATM fraud detection. Earlier work included Flash, JavaScript, and Papervision3D development and an FAA air traffic control simulation built with aviation subject matter experts.

Technical Skills

Software Engineering C#, .NET, TypeScript, React, WPF/XAML, Godot, Objective-C, Swift, REST APIs, JSON/XML, SQLite, Git

Unity and Real-Time 3D URP/HDRP, Shader Graph, ScriptableObjects, custom editors, profiling and optimization, Windows, mobile, VR/XR

iOS Release Tools Xcode, App Store Connect, TestFlight

AI and Automation LLM tool calling, agent orchestration, knowledge retrieval, workflow automation, Ollama, ComfyUI, Stable Diffusion, LoRA

Additional Experience

Speedshape LLC
Jan 2011 - Jul 2011

Layout Artist

3D production and stereo conversion for Spy Kids 4D: All the Time in the World.

Education

Bachelor of Science in Digital Entertainment & Game Design

ITT Technical Institute, Troy, 2012 | Graduated with Honors