

ALEXANDER HAMILTON

Senior Technical Artist | Senior Unity Developer
Project Lead



✉ alexanderhamilton1996@outlook.com

☎ +44 (0)7724355939

📍 Nottingham, UK

🌐 /in/alexander3d

🌐 alex-3d.com



PROFESSIONAL SUMMARY

Senior Technical Artist / Senior Unity Developer and Project Lead with nearly a decade of experience building Unity-based PC and VR training applications. I have progressed from 3D Artist into a hybrid Technical Artist, core systems developer and project leadership role whilst retaining hands-on responsibility for 3D asset production. My experience covers the full product lifecycle, from identifying customer requirements and supporting commercial proposals through to defining scope and technical approach, planning delivery, acceptance testing and long-term customer support. I design reusable Unity systems and tools that can be applied across current and future projects. I also work closely with clients to ensure development remains relevant to their needs. Alongside this, I mentor junior team members, helping them build their skills and contribute effectively to the wider team.



EMPLOYMENT

TSC Simulation - Senior Technical Artist / Senior Unity Developer | Project Lead

2018 - Present

Hybrid technical art, software development and project leadership role creating digital twins and immersive training applications for the oil & gas and renewables sectors with equal parts project and team leadership.

- Leading projects by defining scope, work packages and balancing client requirements with time estimations.
- Design and develop reusable systems for user interaction, equipment operation, input handling, menus and UI, settings, audio, weather, and application management.
- Develop desktop, PCVR and standalone headset applications using Unity, SteamVR, Meta Quest/PICO, OpenXR and the XR Interaction Toolkit, including controller input, wrist-mounted interfaces, and platform-specific behaviour.
- Integrate interactive 3D environments with third-party applications, implementing key client requirements for site operation, repair procedures, and targeted training outcomes via assessments and guided exercises.
- Build and maintain reusable frameworks and system architecture, editor utilities, prefabs and shared components that improve consistency and reduce development time across multiple products and projects.
- Manage the technical art pipeline from CAD data, reference images and laser-scan/point-cloud data through mesh processing, UVs, materials, texturing, lightmapping, collision setup, LOD creation and Unity integration.
- Research and integrate third-party tools and plugins that bring significant benefit to project timelines through downtime and human error reduction.
- Analyse and improve performance through profiling, mesh and texture optimisation, occlusion culling, and platform-specific scene configuration.
- Diagnose complex interaction and application stability issues, refactoring existing systems where required and delivering fixes across established client applications.
- Support Unity version upgrades, source control branching and merging, testing, Windows and Android/Quest builds, software releases, client installations and post-delivery support.
- Create technical demonstrations, product videos and marketing imagery, and represent the development team during customer meetings and site visits.

TSC Simulation - 3D Artist

2017 - 2018

3D Artist role specialising in the creation of process plant assets and textures from reference images and technical data.

- Creating 3D models of process plant equipment and environment assets.
- Creating clean and easy-to-texture UV maps with clear islands and minimised seams.
- Creating realistic PBR textures using Quixel Mixer and Photoshop.



SKILLS & TOOLS

- Autodesk 3DS Max
- Unity (C#)
- VR Development
- Photoshop
- Quixel Mixer
- DaVinci Resolve
- Laser Scanning
- FARO Scene
- Project Management
- AI Development (Cursor)
- Marketing
- Source Control
- Onboarding and Mentoring Juniors
- Client Relations
- Technical Demonstrations and Documentation



EDUCATION

BSc (Hons) Games Production, Nottingham Trent University, 1:1

2016 - 2017

A top-up course ran by Nottingham Trent University and studied at Confetti Institute of Creative Technologies. This furthered my studies into video games by allowing me to create a true scale representation of a chosen building, modelling it in Autodesk 3DS Max, texturing it in Quixel SUITE, and then integrating it into Unreal Engine 4.

FdSc Games Technology, De Montfort University, 1:1

2014 - 2016

Studied at Confetti Institute of Creative Technologies (formally owned by De Montfort University). Tuition was given to kickstart independent development of module content within the field of Games Technology.



ACHIEVEMENTS

- Redesigned a distributed data transfer workflow by replacing a three-application pipeline with a unified application reducing complexity and improving maintainability, owning the system thereafter.
- Led two on-site laser scanning projects, organising personnel around site operatives to ensure optimal asset capture, whilst contributing to that asset capture.
- Converted raw laser scan survey data into game-ready environments, registering scans, building project point clouds and using clipping boxes to strip noise before generating and optimising meshes for use in real-time Unity scenes.
- Owned a unified multi-platform display architecture that lets a single codebase run across VR headsets, Igloo immersive domes and triple and single screen setups, driving the display-mode, tracking and calibration systems that made each configuration work reliably.
- Designed, developed, and launched three original Game Boy games independently, managing three successful Kickstarter campaigns that funded production and enabled global distribution.
- Interviewed twice by the BBC regarding my Game Boy games.



HOBBIES & INTERESTS

- Game Boy Development
- Arthouse Cinema
- Music Production
- DJing
- History
- Reading
- Video Games
- Board Games
- Warhammer 40,000
- Hiking
- Building PCs and Home Servers
- Socialising with Friends and Colleagues

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