Unity Developer – Intermediate

Department: XR

Job Type: Freelance

Application Deadline: 26 August 2025 at 12:00:00

Date Posted: 12/08/25

Payment: Competitive

WHAT WE'RE LOOKING FOR

Key Info

Period	10 weeks
Remote Option	Fully Remote, with option to work from Belfast city centre based office.
Hours	40 hours a week

Ideal Candidate

The ideal candidate we would be looking for would ideally have at least 4 years of experience in Unity development, with comprehensive understanding of cloud-connected infrastructure (PostgreSQL & MongoDB) as well as remote application compilation systems. Experience in Mixed Reality and Virtual Reality development is essential, with demonstrated expertise in performance optimisation and cross-platform deployment for enterprise applications.

Skills

Core Unity Development:

- 4+ years experience in Unity development with C# programming.
- Proficiency in Unity's component-based architecture and design patterns.
- Experience with Unity's Universal Render Pipeline (URP) for XR applications.
- Expertise in Unity's animation systems, including Timeline and Cinemachine.

Virtual Reality & Mixed Reality Development:

- Hands-on VR and MR (Mixed Reality) development experience.
- Implementation of Mixed Reality Toolkit (MRTK) for spatial interactions.
- Hand tracking and gesture recognition system development.
- Spatial audio implementation and 3D sound design integration.
- Cross-platform XR deployment and optimisation techniques.

User Interface & Experience Development:

- Advanced Unity UI (uGUI) development for both traditional and XR interfaces.
- Spacial UI design and implementation for immersive environments.
- Integration of gamification elements and learning progress indicators.

Performance Optimisation & Deployment:

- Mobile XR performance profiling and optimisation techniques.
- Asset bundle management and dynamic content loading systems.
- Memory management and garbage collection optimisation for XR.
- Cross-platform build pipeline configuration and automation.
- Version control systems (Git) and collaborative development workflows.

Learning Analytics & Assessment Integration:

- Implementation of learning objective tracking and measurement systems.
- Biophysiological data integration (Empatica E4, Muse Research devices).
- Real-time performance analytics collection and transmission.
- Bloom's taxonomy-aligned assessment framework implementation.

Output

XR Application Development:

- Cross-platform VR applications optimised for Pico devices.
- Mixed Reality experiences with seamless environment blending and interaction.
- Responsive UI wrapper systems that adapt to different interaction modalities.
- Performance-optimised applications.

Integration & Connectivity Systems:

- Real-time data synchronisation between Unity applications and cloud infrastructure.
- API integration layers connecting Unity clients with microservices architecture.
- WebSocket implementation for live collaboration and real-time updates.
- Secure authentication and session management integration.

User Experience & Interface Implementation:

- Intuitive spatial interfaces following XR design best practices.
- Accessibility features ensuring inclusive design for diverse user capabilities.
- Gamification mechanics that enhance learning engagement and motivation.

- Responsive design systems that work across desktop, mobile, and XR platforms.

Analytics & Assessment Tools:

- Learning analytics collection systems integrated with Unity gameplay.
- Real-time performance measurement and feedback mechanisms.
- Biophysiological data integration and visualisation components.
- Comprehensive logging and debugging systems for quality assurance.

Documentation & Collaboration:

- Technical documentation for Unity development standards and practices.
- Code review and quality assurance protocols for team collaboration.
- Knowledge transfer materials for ongoing development and maintenance.
- Integration guides for connecting Unity applications with platform ecosystem.