

Sergi Tortosa

XR DEVELOPER



ABOUT ME

Software developer with 5+ years of experience in the XR area. Driven by passion for the AR/VR world and willing to help define its future. Organized, methodical and performance aware which results in solid coding and trustworthy software.

LANGUAGES

- English: C1
- Spanish: Native
- Catalan: Native

CONTACT DETAILS

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TECHNOLOGIES

- C#, C++, Python
- Unity, Unreal
- OpenGL, GLSL, HLSL
- GIT

MY PROJECTS

During my spare time I like to develop non-work related applications, such as games.

You can find more about them [here](#).

WORK EXPERIENCE

SW ENGINEER II

Microsoft - Dublin, Ireland - July 2022 - Present

Software engineer working in Microsoft Mesh. Specifically in the Mesh Toolkit allowing developers to create content from Unity that works on Mesh.

Notable accomplishments:

- Development of toolkit features to ensure asset correctness and upload.
- Settings and rendering unification between main project and content projects.
- Enable Toolkit Emulator speed up by disabling unity domain reload and enforcing Toolkit code correctness through Roslyn analyzers.
- Create and iterate over first party deployment pipelines which allow build and deployment in of first party environments on a secure environment.
- Help release public toolkit samples.

VR SW FIELD ENGINEER

HP inc - Barcelona - November 2019 - June 2022

Field engineer for HP VR. Focused on developers support for G2 and G2 Omnicept devices by both generating content and providing direct support to customers issues.

Notable accomplishments:

- Created documentation and code samples for HP Omnicept headset that allowed other developers to explore Omnicept and get started.
- Provided support to HP VR developers on production facing problems. Shared and helped to integrate relevant customer feedback to Omnicept product.
- Helped to develop and grow internal tools.
- Conducted public facing presentations and classes.

XR/VR/AR DEVELOPER

Visyon 360 - Barcelona - January 2018 – November 2019

Software developer as a part of a Unity developers team where my main tasks are solving performance problems, developing new features, maintaining and refactoring the existing ones to provide better scalability and stability.

Notable accomplishments:

- Created an Input System for VR devices (gaze and controller based) using Unity Event System to allow us using native unity UI and remove unnecessary colliders and unify different platforms.
- Profiling and optimization of the current used framework to improve notability the performance on mobile devices.
- Graphic Programming tasks such as real-time GPU foam and VR stereo planar reflections.

XR/VR/AR DEVELOPER

Soft For You S.L - Barcelona - October 2016 - January 2018

Only Unity developer where my main tasks were from designing to developing different applications and proof of concept. At SFY focused mostly on HoloLens development. On our projects we combined camera and map data to add context for remote assist applications. Additionally, we explored cloud point streaming from Kinect and built OpenCV based image comparison for thermal inspection.

SKILLS

◦ **Unity**

- VR Development (Daydream, Oculus Quest, Reverb G2, Pico Neo 3).
- XR (Microsoft HoloLens, Daqri, ARKit, ARCore).
- Editor tools development.
- Profiling applications.
- Graphics debugging (RenderDoc- Unity Frame Debugger).

◦ **Unreal**

- VR Development (Reverb)
- Plugin development.

◦ **C++ OpenXR development**

◦ **ADO Pipelines**

◦ **Working with and developing APIs (.net core).**

◦ **Relational and non-relational databases**

◦ **UML and software architecture**

EDUCATION

- **MIRI - Computer Graphics and Virtual Reality**

FACULTAT D'INFORMÀTICA DE BARCELONA (UPC) – 2017 – 2019

-**Computer science degree (Software engineering)**

FACULTAT D'INFORMÀTICA DE BARCELONA (UPC) – 2013 – 2017

- **Introduction to game development with unity 3D**

FACULTAT D'INFORMÀTICA DE BARCELONA (UPC) – 2015

