

Marc Ruiz Olle

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WORK EXPERIENCE

CARNEGIE MELLON UNIVERSITY | TECHNICAL ARTIST

Pittsburgh, USA | Aug 2023 – Present

- Built synthetic datasets and cinematic sequences in UE5 using optimized 3D environments with Lumen, Path Tracing, and custom materials; integrated high-quality textures from Substance Painter.
- Created and animated 3D characters and environments in Maya for synthetic data, including real-time hair (strands, cards, physics), rigging, and skinning for humans.
- Developed procedural asset tools and FX particles in Houdini; scripted a Python-based UE5 renderer for automated training image generation.
- Collaborated with engineers to test and integrate emerging technologies, supporting algorithm training and Gaussian Splatting pipelines.

SECPHO | TECHNICAL ARTIST

Barcelona, Spain | Mar 2020 – Jul 2020

- Create virtual environments in Unreal Engine to support the development of an online webinar platform.
- Model and texture 3D assets, ensuring seamless integration into the engine while maintaining visual consistency across the platform.

EDUCATION

Carnegie Mellon University

Pittsburgh, USA | 2024 - Present

MASTER OF ENTERTAINMENT TECHNOLOGY, TECHNICAL ARTIST

ENTI-UB

Barcelona, Spain | 2020 – 2023

DEGREE IN DESIGN, ANIMATION AND DIGITAL ART FOR VIDEO GAMES AND SERIOUS GAMES

- Learned to conceptualize and develop 2D and 3D digital art and animation for video games, serious games, cinematics, and multi-platform digital content.
- Synthetic Dataset Generation for Training Data (Bachelors' Thesis with Carnegie Mellon University).

ENTI-UB

Barcelona, Spain | 2018 – 2020

ADVANCED VOCATIONAL QUALIFICATION IN 3D ANIMATION AND INTERACTIVE ENVIRONMENTS

- Acquired a solid foundation in 3D art and game development, from concept art and sculpting to programming in Unity and Unreal. Learned to work in multidisciplinary teams and developed skills to design, produce, and launch games.

SELECTED PROJECTS

1. Created a multiview basketball dataset, with handcrafted animations and complete gameplay sequences for a **SIGGRAPH journal**.
2. Designed and produced all 3D assets, visuals, and videos for a **SIGGRAPH-Asia** paper.

PUBLICATIONS

1. Echoes of the Coliseum: Towards 3D Live streaming of Sports Events; Junkai Huang, Saswat Subhajyoti Mallick, Alejandro Amat, **Marc Ruiz Olle**, Albert Mosella-Montoro, Bernhard Kerbl, Francisco Vicente Carrasco, Fernando de la Torre, **ACM-SIGGRAPH'25 (Journal Track)**

SKILLS

- Synthetic dataset generation, environment building, and pipeline integration using Unreal Engine and Python.
- Proficiency in Unreal Engine 5, Maya, Arnold, Zbrush, Substance Painter, Houdini, Blender and 3DS Max.
- Native in Spanish and Catalan; Full professional proficiency in English.