

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

MASTER OF ENTERTAINMENT TECHNOLOGY, TECHNICAL ARTIST

- Currently taking classes as a staff member

ENTI-UB

Barcelona, Spain

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

- Bachelor's Thesis: Synthetic Dataset Generation for Training Data (with Carnegie Mellon University)

ENTI-UB

Barcelona, Spain

ADVANCED VOCATIONAL QUALIFICATION IN 3D ANIMATION AND INTERACTIVE ENVIRONMENTS

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.