

CESAR MOLTO MORILLA

COMPUTER GRAPHICS R&D ENGINEER / PHD CANDIDATE

ABOUT ME

NATIONALITY BIRTH DATE

Spanish 19th Nov. 1998

GENDER MARITAL STATUS

Male Single

PHONE NUMBER

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EMAIL

cmoltomorilla@gmail.com

LINKEDIN

<https://linkedin.com/in/cesar-molto-morilla>

PORTFOLIO

<https://cesarmolto.github.io>

LANGUAGES

ENGLISH

Full Professional Proficiency | CAE (C1)

JAPANESE

Elementary Proficiency | JLPT N3 (B1)

SPANISH

Native Proficiency | Mother tongue

CATALAN

Native Proficiency | Mother tongue

SKILLS

GRAPHIC API'S

DIRECT3D12 / VULKAN / OPENGL / WEBGL

GRAPHIC DEBUGGING TOOLS

NVIDIA NSIGHT / PIX / RENDERDOC

GPU PROGRAMMING

HLSL / GLSL / CUDA

PROGRAMMING LANGUAGES

C / C++ / C# / JAVA / JAVASCRIPT

VERSION CONTROL SOFTWARE

GIT / PERFORCE / MERCURIAL

OTHER

TEAM WORK / FAST LEARNER /
EFFECTIVE ANALYSIS AND PROBLE-
SOLVING / HIGH ADAPTABILITY

WORK EXPERIENCE

GAMEPLAY GALAXY (REMOTE, SPAIN)

Computer Graphics programmer

December 2024 - Present



- Development of graphic features for the Trial Xtreme Freedom game on Android and iOS platforms.
- Collaborated closely with artists and level designers to implement and integrate level-building tools into the existing development pipeline.
- Identified critical performance bottlenecks across CPU and GPU workloads, proposed optimization strategies, and coordinated their implementation.
- Expanded render pipeline features, and developed shaders and support nodes for Unity Shader Graph, while also supervising shader development to ensure optimal performance.

SQUARE ENIX (TOKYO, JAPAN)

SQUARE ENIX

Computer graphics R&D engineer

January 2023 - December 2024

- Researched and developed experimental graphics features in-house, later integrated into production engines (UE4, UE5, proprietary).
- Key R&D work: Ray-Traced Tessellation-Free Displacement Mapping and real-time skin/hair path tracing in UE5.
- Supported AAA titles (Final Fantasy series, Triangle Strategy) on PC and VR by resolving performance issues, fixing visual artifacts, and assisting teams with milestones.

HANDY GAMES (WÜRZBURG, GERMANY)

HandyGames™

Graphics and gameplay programmer

September 2020 - May 2021

- Developed Titan Quest: Legendary Edition for Android and iOS.
- Implemented rendering features for UI elements, and controller-specific graphics and animations.
- Integrated gamepad support, programmed game rules, and optimized memory and rendering performance.

RESEARCH PUBLICATIONS

DDP TRANSMITTANCE SHADOW MAPS

This research, started as a collaboration with the graphics company SEDDI, focuses on physically accurate fabric rendering. Key contributions include:

- A Dual Depth Peeling extension that captures both transparency and translucent layered shadows in semi-transparent objects..
- Full control over light interactions across geometry layers, enabling effects like auto-occlusion and inter-layer scattering—unachievable with existing methods.
- Realistic, free of relevant artifacts results with real-time performance.

Intended Journal: Computer & Graphics

ACADEMIC RECORD

REY JUAN CARLOS UNIVERSITY (MADRID, SPAIN)

PhD in Computer Graphics and High Performance Computing

2023 - Present

Master's Degree in Computer Graphics, Games and VR. GPA: 8.96 / 10

2021 - 2023

UNIVERSITY OF ALICANTE (ALICANTE, SPAIN)

Software Engineering. GPA: 7.90 / 10

2016 - 2021

ATHLONE INSTITUTE OF TECH. (ATHLONE, IRELAND)

Software Engineering. GPA: 8.93 / 10

2018 - 2019