Carolina Cuadra Pardo

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SKILLS

Technical	Other
- Vulkan - C++ - GLSL	- Judo Black Belt - Fluent in English & Spanish. Conversational French. - Fast Learner

EDUCATION

University of Leeds   Leeds, UK
Msc High Performance Graphics and Games Engineering   2023 - 2024
Classification: Achieved grade until date: 2:1
- MSc Project: mesh reconstruction from point clouds using Marching Cubes.
- Game Engine (group project) Reina Engine: created a game engine from scratch in C++. Developed the skeletal animation system and integrated a physics library into the project. A demo video can be seen here.
- High Performance Graphics: graphics programming using Vulkan. Implemented a renderer with physically inspired shading with a microfacet-based BRDF model, render-to-texture, postprocessing and shadow mapping.
- Animation and Simulation: created different animated simulators, including skeletal animation with blending, a flight simulator with a particle system, and physical simulation of a sphere on uneven terrain.
- Geometric Processing: mesh representation with directed edges, Loop subdivision (mesh operations), and texture parameterization using Floater's shape preserving mapping.
- Foundations of Modelling and Rendering: created a raytracer & renderer (OpenGL) with Blinn Phong.

University of Liverpool   Liverpool, UK
BSc Computer Science   2020 - 2023
Classification: 2:1
- Honours Project: developed a medieval simulator game in Unity3D (C#)
- Advanced Topics in Computer Game Development: reviewed current literature in video games and created a procedurally generated dungeon hide and seek game with intelligent agents.
- Other modules include: complexity of algorithms, principles of C and memory management, advanced object oriented C languages (C++, C#), OOP in Java, and x86 assembly programming.

The British School of Malaga   Malaga, Spain
                                                                                                                                         June 2020

Spanish: A, Physics, A; Mathematics: A; Business Studies: B, Information Technology: B

RELEVANT WORK EXPERIENCE

VTime   Liverpool, UK
Intern   September 2022
- Created a Slack Bot for the internal communications of the company. Written in Java.
- This included Spotify control through Slack channels, Wake-On-LAN for remote workers to turn on their office PCs.

VTime   Liverpool, UK
QA tester   February 2023
- Tested the now released *Border Bots VR* game.
- Gave detailed feedback, troubleshooted issues, and suggested creative changes to improve gameplay and playability.

OTHER WORK EXPERIENCE

STINT, IndeedFlex, MINT   UK
Hospitality   June 2021- March 2023
Temporary hospitality work, from kitchen porter to server, operating tills in various venues and businesses around the North West; this included events catering in venues such as Manchester Arena and Liverpool Anglican Cathedral.

Game Republic Student Showcase   Stoke on Trent
                                                                                                              June 2024

Participated in the student showcase with the *Reina Engine* under the Game Technology category, competing against over 150 students in various categories. The game engine was featured in the showreel. Explained the technical details of the engine implementation to industry professionals, other students, and university staff.

European Youth Parliament   Malaga, Spain
                                                                                                                   2019

Participated in the regional EYP event, where a group of young students debated on world issues. Improved my communication and public speaking, in front of a crowd of 200 students.

European Judo Federation   Malaga, Spain
                                                                                                             2017 - 2020

Volunteered at Major judo competitions of around 300-400 participants. Responsibilities included communicating with competitors and coaches, as well as keeping track of match scores.

References available upon request.