

JUAN PACHECO


REAL TIME INTERACTIVE SIMULATION AND GRAPHICS
PROGRAMMER

CONTACT

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EDUCATION

**BACHELOR OF SCIENCE IN
COMPUTER SCIENCE IN REAL
TIME INTERACTIVE
SIMULATION (RTIS)**

Digipen Institute of Technology

Europe-Bilbao

2019 – 2023

GPA : 3.67/4.0

| PROGRAMMING

- C++
- C
- OpenGL
- Vulkan
- GLSL
- RenderDoc
- Visual Studio
- VCS

| SKILLS

- Problem-solving
- Communication skills
- Self-learning

| LANGUAGES

- Spanish – Native
- English – C2 Level
- Basque – B1 Certificate

PROFILE

Graphics programmer and a Senior student about to graduate from Digipen Institute of Technology. Since my area of expertise is graphics, I love developing games, creating applications and programming with C++ in general.

EXPERIENCE

Teacher Assistant in GAM250 Class

Digipen Institute of Technology / 2022 – January – April

- Assisted Sophomore students in every GAM class; also available remotely to solve any issue
- Provided support for teachers outside class time

STUDENT PROJECTS

Advanced Rendering Techniques Framework

Digipen Institute of Technology / 2021 – 2022 – 4 Months

Senior year project – Individual

- Created a framework to implement advanced rendering algorithms using OpenGL.
- Implemented techniques are Deferred Shading, Cascaded Shadow Maps, Decals, Alchemy Ambient Obscurance, and Real Time Pencil Rendering.

Mag&Net

Digipen Institute of Technology / 2021 – 2022 – 7 Months

Junior year project – 10 programmers

- Developed the graphics engine part.
- Implemented contributions were: animation system, post-processing system, toon shading, entire rendering system...

INDIVIDUAL PROJECTS

GPU Raytracer

Individual project / 2021 – 2022 – 1 Month

- Developed a fully working Raytracer in Gpy using compute shaders in OpenGL
- This raytracer supports meshes, mettalic, diffuse, and dielectric materials, anti-aliasing, any shape lights, and a customizable number of samples. and bounces..

3D Graphics Engine

Individual project / 2021 – 2022 – 3 Months

- Developed it using C++ and OpenGL apart from other libraries (ImGui, SDL, etc.).
- Implemented techniques and algorithms of graphics such as PBR Bloom, PBR, Ray-Marching, Different noises generator, etc.