

# PAU PEDREJON

## COMPUTER ENGINEERING STUDENT (SOFTWARE SPECIALIZATION)

#### CONTACT

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Castelldefels, Barelona

## PROFESSIONAL SKILLS

### **Programming Languages**

C/C++, Java, Python, SQL, R

#### Front-End

React, Next.js, TailwindCSS, HTML/CSS

#### Back-End

Node.js,PostgreSQL

#### Development

Unreal Engine, Unity, Blender, Photoshop, Substance Painter, After Effects

## Version control & Project tools

Git,Jira

#### Hardware & 3D Printing

FreeCAD, Cura, Proteus, Computer Systems

## PERSONAL SKILLS

Teamwork & work ethic

Self Learner

Highly Motivated

Adaptability

Time Management

Class B Driver's License

## LANGUAGES

Spanish: Native Catalan: Native

B2 (First Certificate) English:

Basic Chinese:

## **INTERESTS**

Music: Drums & Guitar Sports: Padel & Gym Art: Digital painting Maker: DIY projects

## **PORTFOLIO**

https://paupedrejon.com

#### **PROFILE**

Creative Computer Engineering student specialising in Software at UPC. Motivated to apply multidisciplinary expertise within collaborative teams to deliver impactful user experiences.

#### PROJECT EXPERIENCE

### Circus VR - Barcelona Game Jam 2024

2024

FIR LIPC

- Collaborated in a multidisciplinary team during a 48-hour hackaton to deliver an immersive VR experience in Unreal Engine.
- Built a functional interactive system with scene props: trigger volumes, object manipulation, physics events and spatial audio, and assembled the whole level myself.

#### Virtual Reality Metaverse Demo

2023

Institut Tecnològic de Barcelona

- · Constructed three interactive VR scenes with Blueprint scripting, Niagara VFX and MetaHuman animations.
- Integrated Oculus SDK, motion-controlled UI and physics-based locomotion for comfortable user experience.

## Online Realistic Videogame - Solo Developer

2020-2023

- Progressed from zero prior experience to shipping a fully-playable 3D online multiplayer game through self-directed learning.
- Implemented animation blueprints, Al behaviour trees, physics-based gameplay, particle/VFX system and a responsive UI with menu navigation.
- · Prototyped a secure login flow and session management via Unreal Online Subsystem; hosted lobbies through a listen server on a local machine.
- Implemented custom net-code replication for multiplayer.
- Integrated adaptive audio and optimised graphics and CPU usage to sustain 120 FPS on mid-range hardware.

# Custom 3D Printed Figure - Maker Project

2020

• Adapted a complex 3D model, slicing it into printer-friendly parts, printing and postprocessed to exhibition quality.

## **EDUCATION**

## Bachelor's degree in Computer Engineering

2023-2027\*

Universitat Politècnica de Barcelona (UPC)

# Unity Essential Course

2024

Universitat Politècnica de Barcelona (UPC)

## Technological High-School Diploma

2021-2023

Institut Tecnològic de Barcelona (ITB)