



# PAU PEDREJON

COMPUTER ENGINEERING STUDENT  
(SOFTWARE SPECIALIZATION)

## CONTACT

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## 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

English: B2 (First Certificate)

Chinese: Basic

## 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

FIB UPC

- 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, AI 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 post-processed 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)