

Pau Peñacoba Alberola

XR Developer • Research & Graphics Engineer

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01 // PROFILE

XR Developer and Research Engineer with a strong focus on real-time graphics, immersive technology and applied research. My background combines an MSc in Computer Graphics & Simulation with a BSc in Game Design, providing solid low-level foundations from custom C++ render pipelines to VR optics calibration with MATLAB. I have taken projects from research prototype to commercial product, and I currently apply AI and automation in production while completing an MSc in Applied AI.

02 // EXPERIENCE

Automation Analyst | RPA & Process Automation — Suntory

• Sep 2026 – Present

- Automate business processes with Power Automate (cloud & desktop RPA), Python bots and ABAP on SAP S/4HANA, plus Copilot Studio agents with RAG.

Automation Engineer — SkaiCRM

• Nov 2025 – Present

- Build AI-driven automation pipelines combining LLMs, RAG and real-time voice agents to streamline CRM workflows.

Augmented Reality Programmer — Suntory

Jun 2024 – Nov 2024

- Turned an MSc thesis demo into a commercial product: an AR industrial-training app in Unity/C# with a Python/TensorFlow computer-vision model that identifies critical machinery parts in real time.
- Delivered and sold a production-ready codebase directly to the client.

Virtual Reality Programmer (Intern) — IRTIC – ARTEC, Universitat de València

Mar 2023 – Jul 2023

- Developed VR surgical-training exercises for the da Vinci robotic system in Unity/C#, with interaction and feedback systems built for realism and usability.

03 // RESEARCH & KEY PROJECTS

Custom OpenGL Render Engine

U-Tad • 2022 – 2023

Built a C++ render engine from scratch: scene graph, lighting, shadow mapping, post-processing, camera system, controls and skeletal animation.

VR Optics — Image Warping & Panoramic Stitching

U-Tad • 2022 – 2023

Applied MATLAB matrix operations to correct lens distortion for a VR headset and generate 360° panoramic textures for immersive skybox environments.

MSc Thesis → Suntory AR App

U-Tad • 2023

Researched real-time computer vision for industrial AR; the thesis demo evolved into a commercially sold product. Unity, C#, Python, TensorFlow.

04 // SKILLS

XR Platforms

Unity (C#) Unreal (C++) Meta Quest HoloLens VR optics & image warping

Graphics

OpenGL Vulkan HLSL / GLSL Custom render engine (C++) Camera & animation systems

Math & Sim

MATLAB Lens distortion correction 360° panoramic pipeline

Vision & AI

TensorFlow PyTorch Object detection & tracking LLMs RAG LangChain

Code & Tools

C++ C# Python SQL TypeScript Git CI/CD Agile / Scrum

05 // EDUCATION

MSc Applied Artificial Intelligence

Universidad Europea • Nov 2025 – Nov 2026

MSc Computer Graphics & Simulation

U-Tad • Oct 2022 – Sep 2023

BSc Video Game Design & Development

Florida Universitaria • Sep 2018 – Jun 2022

06 // LANGUAGES

Spanish — Native

English — Upper-Intermediate (B2+)