Álvaro Cabrero Barros

Animation Programmer

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ABOUT ME

Animation programmer who builds the systems that make game characters move well, in Unreal Engine 5 (C++). Experience in AAA and indie development, bridging technical and artistic teams to raise the visual quality of gameplay. I learn fast and enjoy multidisciplinary teams.

SKILLS

Unreal Engine 5 · C++ · Unity · C# · Animation Systems · IK · Ragdoll & Physical Animation · Cloth & Hair Physics · Chaos · Motion Warping · GAS · MetaHuman · Perforce

WORK EXPERIENCE

Saber Interactive · Animation Programmer — Madrid · Nov 2023 – present

- Primary bridge between the animation and programming teams, aligning technical and artistic goals.
- Implemented core gameplay mechanics and animations on AAA projects: **Turok: Origins** (story and gameplay trailers, Steam) and the **Untitled John Wick** game (reveal trailer, Steam).
- Own the character physics pipeline: animation-to-ragdoll blending, physical hit reactions, get-up recovery, networked ragdoll sync and physics assets for humanoid and non-humanoid creatures.
- Built clothing physics with priority management and groom hair simulation; hit reaction systems and a reworked per-character look-at system.
- IK for locomotion, interactions and combat; combat mechanics in C++, Animation Blueprints, Motion Warping and GAS.
- Develop and polish character locomotion, shaping how the character moves and feels.
- Console physics optimization, MetaHuman characters, and custom Animation Blueprint nodes, test levels and debug tools for animators.

PadaOne Games · Software Engineering Intern — Madrid · Nov 2022 – Jun 2023

AI Behavior Trees in Unity for enemy senses in a stealth game, AR tools for the design team, and legacy code modernization.

Vicomtech · Research Assistant — San Sebastián · Aug 2021 – Aug 2022

Built collaborative AR apps (HoloLens, Android, iOS, PC, Web) with Unity, ARFoundation and React with Three.js for European projects H2020 ARETE, H2020 RESCUER and 5G EUSKADI. Co-author of "Collaborative Augmented Reality Tools for Behavioural Lessons" (DOI).

Vicomtech · Software Engineering Intern — San Sebastián · Jan – Jun 2021

Collaborative musical AR environment for education in H2020 ARETE, with Unity and Vuforia (demo videos).

IECISA (CGSI) · IT Intern — Oviedo · Feb – Mar 2020

Application deployment with Docker, system administration troubleshooting and database management.

PROJECTS

Verso · Android app for poetry and lyrics, Kotlin, Jetpack Compose — Source · Download

Notebook for poems and song lyrics in Spanish that analyses the text as you type: metrical syllables, rhyme scheme and literary devices. Records voice memos and demos and links them to their songs.

LunarPunk · Tower attack game, Unreal Engine 4, C++ — Video · Source

Programmed gameplay, animations and AI; led the FMOD integration; automated builds with Jenkins; refactored the codebase for performance and robustness.

Game jams

Madrid in Game (Oct 2023), Global Game Jam (Jan 2023), Ludum Dare 48.

EDUCATION & LANGUAGES

Master's Degree in Video Game Development · Universidad Complutense de Madrid · Capstone: LunarPunk — 2022 – 2023

Bachelor's Degree in Computer Software Engineering · Universidad de Oviedo — 2015 – 2021

Thesis: Collaborative Music Environment in Augmented Reality, completed as an intern at Vicomtech.

Spanish (native) · English (B2)

More at alvaro.cabrero.me