

JUAN ANTONIO FONSECA MENDEZ

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EXPERIENCE

Freelance Unity Developer

Mar 2024 - Present

Self-Employed

Remote

- Developed a Meta Quest VR application for first-aid training as sole programmer, implementing scene management, multilingual narration via ElevenLabs TTS, and localization using Unity's Localization package, on top of an existing VRTK-based in-house framework.
- Built a mobile Unity app integrating ChatGPT API for an AI-driven emotional wellness companion, implementing the full front-end including UI, async communication with the backend REST API, and Microsoft Cognitive Services for speech-to-text and text-to-speech.
- **2nd place** at XR Creator Con 2024 (Best Use of ShapesXR) for a hackathon project: an AR plant-care app featuring AI-driven plant personalities.

Unity Developer

Nov 2022 - Oct 2023

Interco LLC

USA (Remote)

- Developed a multiplayer VR shooter for SteamVR and Meta Quest 2 using Photon Fusion for networking; implemented gameplay mechanics, environment behaviour, and user feedback systems.
- Proposed and built a custom NPC AI system replacing an off-the-shelf solution, reducing the time to create a new enemy type from ~1 day to a few hours.
- Proposed and led adoption of GitFlow, Semantic Versioning, and Conventional Commits within a team of 3 developers and 1 technical artist, improving collaborative workflow and release management.
- Integrated ChatGPT API and Microsoft Cognitive Services (STT/TTS) into Unity mobile apps; worked with Niantic Lightship ARDK for geolocation-based AR features.

Unity Developer

May 2022 - Aug 2022

Wonder XR

USA (Remote)

- Extended a gamified fitness VR app (1000+ beta users) for Meta Quest 2, adding localization, adversary AI, and UI/UX improvements.
- Optimized post-processing pipeline, increasing framerate from ~40 fps to 90 fps — bringing the app to Meta Store performance requirements.

Unity Developer

Jan 2021 - Apr 2022

Yeltic Inc.

Mexico City, Mexico

- Developed interactive AR training experiences for multiple industries, deployed on smartphone, PC, and Microsoft HoloLens 2 (using MRTK).
- Implemented AR mini-games, UI/UX, push notifications, camera integration, and backend communication; contributed to internal developer tooling.

Game Programmer

Sep 2019 - Dec 2019

GainPlay Studio B.V

Utrecht, The Netherlands

- Contributed to architecture redesign of a serious game prototype for diet management; implemented core gameplay and UX systems in Unity.
- Conducted code reviews to ensure code quality and maintainability standards across the team.

EDUCATION

Master of Science. Game and Media Technology

April 2019

Universiteit Utrecht - The Netherlands

Thesis: The role of competition and perspective in game-based learning for traffic rules education

Supervisor: Sergey Sosnovsky, Ph.D.

Cumulative average grade: 7.52 / 10

Bachelor of Science. Computer Science Engineering

June 2015

Universidad Nacional Autonoma de Mexico - Mexico

Specialization on Computer Graphics and Intelligent Systems

Cumulative average grade: 8.92 / 10

Relevant Coursework: Artificial Intelligence, Computer graphics, Computer Learning

CONFERENCES

2022 Jalisco Talent Land — Technologies for the Metaverse

Speaker (presentation in Spanish)

SKILLS

Expert	C#, Unity Engine, VR/AR Development
XR SDKs & Tools	XR Interaction Toolkit, MRTK, VRTK, OpenXR, Niantic Lightship ARDK
Networking	Photon PUN, Photon Fusion (multiplayer)
Platforms	Meta Quest (2/3), HoloLens 2, SteamVR, Android, iOS
AI Integration	ChatGPT API, Microsoft Cognitive Services (STT/TTS), ElevenLabs
Architecture	MVC, Event-Driven (Observer pattern), Async/Await
Workflow	Git, GitFlow, Semantic Versioning, Conventional Commits
Additional	C++, Python, Unreal Engine
Soft Skills	Code review, Interdisciplinary collaboration, Public speaking

LANGUAGES

German	A2 (actively studying, targeting B1)
English	C2 (proficient)
Spanish	Native
Dutch	A1