Ramon Mendez

3D Generalist

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Summary

3D Generalist with 7+ years of experience delivering game-ready and photorealistic assets and environments for real-time applications. Full asset pipeline ownership: modeling, retopology, UV mapping, PBR texturing, baking, lighting, and rendering across Blender, Maya, 3ds Max, ZBrush, Substance Painter, and Unreal Engine 5. Background in full stack development (Angular, Node.js, Python) applied to pipeline tooling, asset automation, and web integration of 3D content.

Skills

3D Software:	Blender, Maya, 3ds Max, ZBrush, Unreal Engine 5, Unity, MetaHuman, Substance Painter
Asset Creation:	Hard-surface & organic modeling, digital sculpting, retopology, UV mapping, baking, LODs
Texturing & Look Dev:	Photorealistic PBR materials, shading, procedural texturing, lighting, Photoshop
Real-Time Optimization:	VR optimization (Unity), topology optimization, draw-call reduction, modular assets
CAD & Industrial:	SolidWorks, Fusion 360, AutoCAD, Inventor, SketchUp
Development (secondary):	Python, TypeScript, C#, Angular, Node.js/NestJS, Unity, Git

Experience

Global Primex · *Technical Artist & Full Stack Developer* February 2025 - Present

- Engineered a custom Mesh-to-MetaHuman pipeline for a branded digital ecosystem, producing engine-ready characters aligned with brand identity and real-time visual standards.
- Modeled, textured, and optimized custom 3D props and environments in Blender and Maya, matching MetaHuman topology requirements via exported base meshes from Unreal Engine.
- Collaborated with UX/UI designers and product management to ship responsive, user-focused interfaces integrating 3D assets on the web (Angular, Node.js/NestJS).

Quayolo & Peekture · *3D Generalist* September 2024 - February 2025

- Designed and delivered 3D props and environment assets for internal and commercial projects, optimizing geometry and textures for efficient integration across multiple platforms and pipelines.
- Performed high-fidelity retopology on complex architectural assets, reducing polycount by over 90% while preserving silhouette and surface detail for real-time rendering.

Bear & Otter Studios · *Technical Artist & Python Developer* January 2024 - June 2024

- Designed and built immersive environments and levels in Unreal Engine 5 with a strong focus on composition, atmosphere, and visual storytelling.
- Integrated materials, lighting setups, and cinematic elements to enhance narrative-driven experiences; built internal tools with Python and PySide6 to streamline production workflows.

VIRTEC Tecnologias en Simulacion Virtual · *3D Generalist* March 2018 - September 2022

- Executed end-to-end 3D production pipelines for multiple clients, covering hard-surface and organic modeling, texturing, and final rendering in Blender and Maya.
- Developed high-quality texture workflows using Substance Painter and Photoshop, achieving photorealistic, production-ready results for commercial-grade renders and real-time integration in Unity and Unreal Engine.
- Delivered immersive real-time and VR training simulations in Unity and Unreal Engine, optimizing geometry, textures, and draw calls to hold stable VR framerates, from environment blocking to final lighting and post-processing.

KUKA Systems North America / BMW Spartanburg · *Mechatronics Engineer* January 2023 - September 2024

- Verified part positioning, tooling assembly, and on-floor physical adjustments for automotive automation systems (GM, Ford, BMW X5 line) using SolidWorks, AutoCAD, and Inventor; experience applied to accurate hard-surface modeling and industrial visualization.

Selected Projects (portfolio: ramonmendez.dev/projects)

Global Primex Digital Ecosystem — MetaHuman pipeline and real-time asset production: optimized props and custom-geometry workflows in Blender, Maya, and Unreal Engine 5.

High-Fidelity Retopology for Web & Unreal Engine — Converted a 10,000+ poly-dense architectural scan into modular, structured assets; consolidated materials and reworked UVs to minimize draw calls for web and UE5 deployment.

Port Crane Simulator Display Structure — Designed the mechanical structure of a port crane simulator, including structural calculations and fabrication drawings for its PTR steel-tube frame; created realistic materials, textures, and lighting matching the physical simulator (SolidWorks, Blender, Substance Painter).

Education

Universidad Tecnologica de Altamira Altamira, Mexico

Bachelor's Degree, Mechatronics Engineering September 2018 - April 2020

Associate Degree, Mechatronics – Automation September 2016 - August 2018

Languages

Spanish (Native) · English (Professional Working Proficiency)