

Rodrigo Galdamez

Senior Technical Artist

Tokyo, Japan

+81 9096083736

rogaldesign@gmail.com

[Portfolio Website](#)

SUMMARY

Technical Artist with 15 years of experience across game development, Virtual Reality, mobile, and large-scale real-time simulation. I specialize in Unreal Engine 5, real-time rendering, technical art pipelines, tool development, and scalable content workflows.

My work covers lighting, materials, shaders, terrains, procedural environments, optimization, and modern Unreal Engine rendering technologies such as Lumen and Nanite. I have experience creating and optimizing content for a wide range of hardware targets, from mobile and VR platforms to high-end real-time experiences.

I have contributed to simulation and visualization products used by automotive and transportation companies including Audi, Fiat, Porsche, Ferrari, and Mercedes-AMG through products such as VI-WorldSim and VI-DriveSim. More recently, I worked on Unreal Engine 5 simulation and content workflows for Arene, Toyota's software platform deployed in the all-new 2026 Toyota RAV4.

I have delivered production workflows and content from early prototypes to shipped products, including Redpill's Aurora VR social platform. I work closely with artists, engineers, and production to improve pipelines, solve rendering and performance problems, and make real-time content easier to build, validate, and deploy.

PROFESSIONAL EXPERIENCE

Senior Technical Artist

Woven by Toyota — Tokyo, Japan

2024 – Present

- Rendering and asset library development owner for an Unreal Engine 5-based internal vehicle simulation platform within Toyota's Arene Reactor team, supporting software deployed in the all-new 2026 Toyota RAV4.
- Build, migrate, and optimize large-scale high-quality maps and assets for simulation and demonstration scenarios, integrating vehicles, pedestrians, lighting, weather systems, and CARLA-based content into Unreal Engine 5 workflows.
- Design and maintain pipelines for asset cooking, packaging, validation, and publishing, enabling cross-team usage of Unreal Engine 5 content libraries.
- Investigated, optimized, and modernized Unreal Engine 5 rendering workflows, adopting Lumen and Nanite while improving rendering performance, package size, and load-time efficiency.
- Developed asset production automation and validation workflows to improve content quality, rendering consistency, and production efficiency.
- Developed internal Blender plugin tools and Unreal Engine 5 Python automation workflows to streamline daily asset preparation and production tasks.
- Author and maintain technical documentation, rendering guidelines, and workflow runbooks for developers and customers.
- Collaborated with legal and IP teams on asset licensing and content compliance workflows.

Senior Technical Artist – Consultant Contractor

VI-Grade — USA / Italy

June 2022 – November 2023

- Designed and optimized high-quality 3D assets, environments, and rendering workflows in Unreal Engine 5 for VI-WorldSim and VI-DriveSim.
- Contributed to simulation and visualization products used by automotive manufacturers including Audi, Fiat, Porsche, Ferrari, and Mercedes-AMG.
- Co-designed production pipelines for vehicle workflows and Chaos physics simulation data preparation.
- Developed Data Prep, DataSmith, and custom pipeline tooling to streamline asset importing and scalable content preparation.
- Developed asset production workflows in Blender and Maya.
- Worked with engineers, artists, and technical stakeholders to maintain visual quality, technical reliability, and production efficiency.
- Conducted R&D for UE5 Nanite and asset optimization workflows.
- Produced technical documentation for proprietary SDKs, simulation workflows, and third-party content pipelines.

Senior Technical Artist

Redpill VR — USA

August 2017 – June 2022

- Contributed to end-to-end VR products and real-time interactive experiences, including Aurora and large-scale technology demonstrations for E3 2019, OC3 2016, and CES 2016.
- Implemented and optimized real-time materials, shaders, rendering techniques, and content workflows for VR production environments.
- Integrated HLSL shaders and VFX systems.
- Streamlined production workflows through Maya tools and technical art automation.
- Created terrain systems and procedural auto-populated foliage optimized for real-time performance.
- Worked on rigging and animation retargeting for characters and NPCs.
- Integrated regular and IK animation systems in Animation Blueprints.

Technical Artist

Vertex Studio — El Salvador

April 2016 – July 2017

- Led the 3D content creation team for VR prototypes and interactive product demonstrations.
- Managed and mentored artists while establishing best practices for technical art production workflows.
- Built multiple VR prototypes and product demos.
- Developed Unreal Engine 4 workflows using NVIDIA HairWorks and Flex technologies.

Technical Artist

Beyond Games — El Salvador / USA

October 2013 – April 2016

- Led the art team for Battle Strike Force prototypes, introducing physically based rendering materials and pipelines.
- Managed motion capture and animation research and development, improving content production workflows.
- Organized production tasks and sprint planning using Jira and Trello.

3D Artist

InEarth Central — El Salvador

January 2011 – October 2012

- Created low-poly models and hand-painted textures for mobile and indie game projects for Unity Engine games.
- Contributed to UI design and 2D VFX production.
- Optimized assets for mobile hardware targets and performance constraints.

EDUCATION

Graphic Design Associate Degree

Universidad Don Bosco — San Salvador

2010 – 2012

SKILLS

Unreal Engine 4 & 5, Unreal Engine Tool Development, Unreal Engine Python Scripting, Real-Time Rendering, Rendering Optimization, Performance Profiling, Lumen, Nanite, Niagara, VFX, Lighting and Look Development, Materials and Shader Authoring, Procedural Environments, Procedural Content Generation, Houdini Procedural Workflows, Terrain Systems, Level/Map Production, Shader Optimization, Performance Optimization, Animation Blueprint, Physics Simulation, Virtual Production, Technical Art Pipelines, Content Production Workflows, Pipeline Automation, Tool Development, DCC Tool Development, Blender Plugin Development, Data Prep Pipelines, Unreal Engine Packaging and Cooking, Asset Validation, Asset Optimization, Linux-based UE5 Workflows, Docker and Containerized Workflows, Git, Perforce, Python, MEL, Houdini, Blender, Maya, ZBrush, 3DS Max, Substance Painter, Quixel Suite, Game Development, Virtual Reality, Real-Time Simulation, Automotive Visualization, Mobile Optimization, Cross-Functional Collaboration, Team Leadership and Mentorship, UI/UX Prototyping, Rigging, Level Design.