

TOBIAS ARRIETA

TECHNICAL DESIGNER

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Game developer focused on interactive experiences that invite strategic thinking and foster learning processes through play. I design and implement dynamic systems using visual scripting and procedural techniques, operating at the intersection where game design, art, and programming converge.

PROFESSIONAL SKILLS

Visual Scripting	Data Visualization	Particle Systems & Shaders
C#, C++ Languages	UX/UI	Physics Simulation

SHIPPED PROJECTS

- Tachyon - Multiplayer Vehicle Shooter (UE 5)

Mar 2026 - Present

 - Designed the core gameplay experience, building mechanics and dynamics that establish a distinct game feel and identity over existent arcade racing games.
 - Authored and maintained the Game Design Document, establishing a clear, unified vision that served as the primary coordination tool for the art and programming teams.
 - Built a web-based pre-production simulation tool featuring autonomous agents to emulate high-speed combat behavior, capturing real-time telemetry to validate and iterate on arena layouts.
 - Developed adaptable visual systems for core game actions and special abilities, prioritizing outstanding user feedback and responsiveness.
- Jovian Nightmare - Space Grappling Hook Fighting (Unity)

Nov 2025 - Feb 2026

 - Built a modular Asteroid Manager tool with fully adjustable spawning controls and collision-driven fragmentation, empowering level designers to iterate directly.
 - Developed an adjustable "Killzone" boundary system utilizing a lightweight radial projection and immersive VFX that ensures high player readability and intuitive spatial awareness.
 - Created dynamic screen shaders and post-processing volumes driven by player data, alongside cinematic destruction sequences integrated with custom physics.
- Realm Sandbox - Procedural Medieval World Generator (Unity)

Aug 2024 - Dec 2024

 - Engineered a 2D procedural terrain generation system inspired by Voronoi diagrams and decision trees, effectively balancing the main algorithm with runtime performance constraints.
 - Architected a scalable data framework utilizing Markov chains to generate dynamic settlement / population naming alongside an emblem generation system utilizing shifting sprites and materials to represent unique, interconnected procedural cultures.
- Medellin Spectral Tour - AR Gamified Experience (Unity)

Jul 2024 - Nov 2024

 - Directed the end-to-end development of culturally authentic avatars, applying contextual design principles and historical research to drive the AI-powered animation workflow.
 - Succesfully integrated Augmented Reality and real-time geolocation SDKs, successfully resolving dependency conflicts to deliver a stable, award winning mobile experience.
- Kola Factory - Logical Minigame (Figma)

Jan 2024 - Jun 2024

 - Pushed the technical constraints of a non-developer platform to program a fully functional, logic-driven game featuring real-time scoring and variable-synced animations.
 - Delivered a polished, interactive prototype for institutional marketing, successfully validating the core gameplay loop through live playtesting with target demographics.

TOOLS

Atlassian: Confluence & Jira
Unreal Engine 5, Unity Engine
Miro Boards & Figma Prototyping
Microsoft Visual Studio & Excel
p5.js & Cables.gl simulation tools
Google Colab, Firebase
Blender & Autodesk Maya

INTERESTS

RTS & Grand Strategy Games
History & Cartography
Magic: The Gathering
Mead Fermenting
Martial Arts
Aviation
Meditation

EDUCATION

Diploma in Programming for Games, Web & Mobile

Aug 2025 - Aug 2026

Vancouver Film School, Canada

- Intensive 12-month program with 1 030+ hours of lectures, labs, seminars, and hands-on production work, culminating in the release of two shipped games in collaboration with cross-functional teams.

Bachelor of Digital Entertainment Design Engineering

Jan 2021 - Jun 2025

Universidad Pontificia Bolivariana, Colombia

- Executed 7+ semester-long collaborative workshops, delivering end-to-end interactive products for public exhibitions.

ADDITIONAL INFORMATION

Side projects:

- **55K Views YT Video:** Medellin Timelapse Animation, Urbanistic Expansion - 2025.
Most liked comment: "I felt like playing Age Of Empires. Great video!"
- **3 Custom Maps for *War.App*:** Used in 125 hosted online matches.
2 additional maps developed for *Age of Conquest IV*.

Awards:

- Best Interactive Experience - DEX Showcase (2024)
- Highest GPA Scholarship - Universidad Pontificia Bolivariana (2024)

Languages: English, Spanish