

# José Villegas | Curriculum Vitae

Los Rosales, Prado de Maria, Gran Colombia – Caracas, Venezuela

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Game developer and graphics programmer, aiming to break through into the game industry and contribute on making great games with my skills, and expand upon them.

## Technical Skills

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**Programming Languages:** C++, C#, C, JavaScript.

**Development Tools:** Git, SVN, Visual Studio.

**APIs, Libraries & Game Engines:** Unity, OpenGL/GLSL, STL, WPF.

## Experience

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### C# Game Developer, Unity

**LearnSafari**

*Australia-Venezuela, (Remote)*

*Nov. 2015–Jul. 2016*

Learn Safari is a educational game meant to teach children Spanish through different lessons with a variety of mini-games and narrative.

- Designed, implemented and optimized game logic and mechanics for minigames, progress saving and visual effects.
- Contributed on level design alongside artists and audio engineers to ease the integration of games onto scenes.
- Developed tools to speed up the inclusion of dialogue scripts into usable values and timings for synchronized text.

### Game Development General Laboratory (Intern)

**Computer Graphics Center, UCV**

*Faculty of Sciences, Caracas*

*Apr. 2015–Aug. 2015*

- Wrote and researched theoretical and practical material for a general laboratory on game development with Unity.
- Made examples within Unity for game mechanics, visual effects and character, objects and camera logic.

### Teacher Assistant, Operative Systems

**Department of Computer Science, UCV**

*Faculty of Sciences, Caracas, Prof. Robinson Rivas*

*Mar. 2012–Jul. 2012*

- Taught the C programming language, memory allocation, system calls, parallel and concurrent programming.
- Gave lectures on operative systems concepts, file systems, processes and system commands shell commands.

## Education

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### Licentiate in Computer Science

**Central University of Venezuela**

*Faculty of Sciences, Caracas, Venezuela*

*2009–2016*

Major: Computer Graphics, Graduated with Honors

Academic Projects.....

### Thesis: Voxel Shading and Cone Tracing for Global Illumination

**Computer Graphics Center**

*Central University of Venezuela, Faculty of Sciences*

*2016*

Supervisor: Prof. Esmitt Ramírez. A real-time dynamic global illumination approach based on cone tracing for emissive, diffuse and specular surfaces utilizing voxel shading and compute shaders.

### Multi-textured Terrain Generation and Rendering

**Computer Graphics Center**

*Central University of Venezuela, Faculty of Sciences*

*2015*

Randomly generated terrain with height based texture mapping, light-baking and dynamic level of detail.

### Style Transfer Functions for Volume Rendering

**Computer Graphics Center**

*Central University of Venezuela, Faculty of Sciences*

*2015*

Bilinear transfer function editor and matcaps interpolation for cheap volume shading and non-realistic rendering.

## Languages

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**Spanish:** Native.

**English:** Professional working proficiency.

## Events & Conferences

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**Global GameJam 2016, Caracas:** A 48 hours game jam global event. Collaborated in the game "The Haunt" [↗](#) using Unity3D. The Haunt is a tag-like game where the players start as werewolves, they have to find and touch a human to cure themselves and infect the human, the goal is to stay human as long as possible using the environment.

- Worked on level design, characters movement, multiplayer interactions and visual effects.
- Developed a system for level creation on a tight deadline with rooms resembling a pipe puzzle games.

**Global GameJam 2015, Caracas:** Collaborated in the game "Kidz Solution" [↗](#) using Unity3D along with many teammates on different roles. In Kidz Solutions kids have to save adults from different enemies in a post-apocalyptic world.

- Contributed on the game concepts, designed and implemented the game interface and game mechanics.
- Implemented the artificial intelligence for a variety of enemies with different behaviors.

**5th JOINCIC 2012, Caracas:** A computer science conference with many talks and courses of different topics on computer science such as web development, game development, robotics, parallel computing, data processing, etc.

**CEIDEC 2012 - UCV GameDev Contest, Caracas:** A scientific research and development conference with a broad range of talks from different areas such as maths, physics, biology and computer science. Developed the game "Hybris" [↗](#) using Unity3D along with many teammates on different roles. Hybris is a god game where the player has to save humanity from imminent doom using different powers.

- Designed and implemented the game mechanics and the artificial intelligence for the bystanders.

## Hobbies & Interests

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**Game Development:** The many challenges that appear developing a game and how to solve them, seeing your work in motion and learning about topics from other professional fields, designing game mechanics.

**Gaming:** I enjoy playing video games, specially multiplayer games with friends, I don't play only for the fun but sometimes also to learn the game mechanics and deconstruct how some of them were implemented.

**Real Time Rendering:** Techniques to generate high quality computer graphics in real time, new hardware features, GPU computing, graphics APIs and new possibilities within the rendering pipeline.