José Villegas | Curriculum Vitae

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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

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

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

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

Experience

C# Game Developer, Unity — **LearnSafari**
Australia-Venezuela, (Remote) — *Nov. 2015–Nov. 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 and shell commands.

Education

Licentiate in Computer Science — **Central University of Venezuela (UCV)**
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

Spanish: Native.

English: Professional working proficiency.

Events & Conferences

Global GameJam 2017, Caracas: A 48 hours game jam global event. Collaborated in the game "Echo Switch" using Unity. Echo Switch is a co-op sidescroller where the players have to interchange abilities to complete levels and fight enemies.

- Implemented character movement, co-op features, mechanics, artificial intelligence, UI and visual effects.

Global GameJam 2016, Caracas: Collaborated in the game "The Haunt" using Unity. 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 Unity 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 Unity 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

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.