# 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, characters, 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

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.