

# Orlando Aguilar Vivanco

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<http://orlandoaguilar.github.io/>

Allowed to work in USA

## Summary

Programmer with expertise in image processing and game development. Leader and designer of several tasks in programming projects. Enjoy working hard, making video games, researching and getting along with everyone. Looking for full time job.

## Skills

**Programming languages:** C/C++, Java, C#, HLSL, GLSL, BenuGD, Lua, Javascript, MySQL

**Software:** Unity3D, Git, Visual Studio, Eclipse, Matlab, Blender, Gimp 2

**Languages:** Spanish, English

**API:** DirectX, OpenGL, SDL, Windows Phone SDK, Android SDK, OpenCV, Qt 4, Windows API, FMOD, Chipmunk Physics, XNA, STL, WebGL

**Others:** Oculus VR, AI, Image processing, Graphics, Physics

## Projects

**Snowball's chance:** Video game project developed during my master in DigiPen.

*Spring 2015*

- Developed a scripting system using LUA, increasing development velocity of game in 8%.
- Optimized graphics system with radar frustum culling, increasing fps by 25%.
- Developed custom physics engine which created the illusion of 3D physics with 2D calculations.
- Worked directly with game designer providing tools and programming gameplay, allowing the game to be finished 1 week before the expected time.

**Orly:** Solo project developed in Unity 3D and published in Google Play (30 levels)

*Spring 2014*

- Designed a system of Input through accelerometer and touch screen that immerses the player on the game while he/she modifies the velocities on the character.

**SimiBot:** Software simulator with registration, for University, developed in C++ with QT.

*Fall 2012*

- Developed 3D graphics system, allowing the user to see the simulation in real time.
- Designed PUMA dynamics and kinematics that matches 99% expected results on real time.
- Applied a multithreading design that improves responsiveness of application in 10%.

## Achievements

GPA of 4.0 in DigiPen

*Currently*

Author, "Characterization of Nanotube Structures Using Digital-Segmented Images", IEEE, ISBN 978-1-4673-7010-3.

*Nov 2014*

Winner in Exposoftware 4 times: VII, VIII, IX and X

*2008-2011*

## Education

**M. S. in Computer Sciences**

DigiPen Institute of Technology

*Expected May 2016*

**Engineer in Electronic and Computer Sciences**

Universidad de Guadalajara  
(Mexico)

*2013*

Specialization in Image Processing

Overall average 99.27% / 100%

**Videogames for Windows 8, a Microsoft Learning Workshop**

App University

*2013*

**Oracle Certified Professional, Java SE 6 Programmer**

Oracle University

*2011*