

# JORGE L. RODRÍGUEZ

Video game programmer

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Los Angeles, CA  
[vinoisnotouzo.com/resume/bungie](http://vinoisnotouzo.com/resume/bungie)

## EXPERIENCE

### **Double Action Programmer, Designer.**

Apr 2011 - Present

Shipped on Steam in mid 2014, 91% positive reviews. ModDB Editor's Choice Mod of the Year 2014.  
Designed and implemented game mechanics: multiplayer slowmo, mini-objectives, a stunt system.  
Implemented a scalable (up to a million players) leaderboard across all servers.  
Developed a gameplay data tracking system that stored and displayed user statistics.  
Added new shader effects such as SSAO, depth of field, slowmo effects.  
Built on Valve's Source Engine in C++. Designed and wrote user interface with VGUI.

### **Digitanks Programmer, Designer.**

Mar 2010 - Dec 2013

Shipped an artillery-based strategy game, three game modes, online/hotseat multiplayer.  
Built the Tinker game engine in C++: physics, scene management, renderer, UI, networking, level editor.  
Profiled game code and implemented numerous optimizations.

### **Viewback Programmer.**

Feb 2014 - Present

A game design tool that shows realtime debug data on a wireless device.  
Users can interact with their designs and change game design parameters without recompiling.  
Wrote server component in C to be extremely memory conservative and support all major platforms.  
Wrote multithreaded monitor app on Windows/Linux/Android to analyze and control a running game.

### **Math for Game Developers Creator.**

Jan 2013 - Present

Produced an online video series on the math required for video game development.  
Subjects include linear algebra, calculus, graph theory, quaternions, triangle meshes, shaders.  
Over 9,000 subscribers, over 450,000 views, Kickstarter funded at 330%.

### **SMAK Programmer.**

Mar 2010 - Dec 2013

Designed and sold the AO/Normal map generator SMAK! with realtime 3D preview.  
Optimized the raytracer SMAK used to generate ambient occlusion and normal maps.  
Implemented a GPU-accelerated AO algorithm capable of generating maps in seconds.

## Previous Work

**Talk - "Double Action: Postmortem"**, ECGC, 2015. On how meaningfulness and iteration towards guiding principles can differentiate a design in a crowded market.

**stb\_image\_resize**, 2014. An image resizing library with emphasis on usability and speed.

**The Specialists**, 2004-07. Multiplayer action shooter, Half-Life engine. Programming, design.

**Providence Software Solutions**, 2004-09. Cross-platform GUI toolkits, C/C++. Programming.

## SKILLS

11 years professional experience (C, C++)  
Program optimization  
Game design, Interaction design and usability

Mathematics: linear algebra, imaging,  
flocking algorithms, fluid solvers,  
mechanics, modeling and simulation

## EDUCATION

### **University of California, Los Angeles**

Sep 2014 - Dec 2015

*Bachelors in Mathematics of Computation*

### **Grossmont College, La Mesa, CA**

Jan 2011 - May 2014

*General Education*

## ACTIVITIES

*Hablo español*

*GDC Conference Associate*, 2 yrs

*Hapkido Assistant Instructor*, 3 yrs

*Triangle Game Developers Organizer*, 1 yr

*Music Composition and Performance*, 18 yrs

*Dvorak typist*, 80 wpm