**Ian Backlund**

**Video Game Programming, Graphics, and Design**

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**Computer Skills**

 **Programming Skills**

Skilled at using the C++ and C# programming languages to implement videogame rules and gameplay using Visual Studio, Android Studio, Mono, and XCode as development environments. Able to write code using common object-oriented design patterns. Experienced at using the Unity, Torque and Lithtech Jupiter engines for game development. Skilled at creating scripts, plug-ins and exporters for 3D Studio Max and Blender. Familiar with synchronizing code in a cooperative development environment using Source Depot, SVN, Git and Visual Source Safe.

 **3D Computer Graphic Skills**

Experienced with a wide range of computer graphics programs including but not limited to Blender, 3D Studio Max, Allegorithmic’s Substance tools, Photoshop and GIMP; capable of using box modeling, NURBS, spline and mesh editors to render and adjust computer images to make backgrounds, buttons, sprites, characters, scenes and other graphics. Able and experienced at creating video game levels (Binary Space Partition Tree geometry) through QuArK, WorldEdit and Constructor. Experienced at creating and applying texture patterns to models. Capable of creating computer animations by rigging geometry to skeletal structures connected to motion sequencers.

**Projects and Experience:**

**Kuma Games Programmer 8/13 to present**

Worked as a programmer and designer on three different released games and many more game prototypes. Programmed gameplay, networking, AI opponents, graphics, GUI, in-app purchasing, voice controls, and analytics using the Unity game engine and C#. Released games on the Steam (PC), iOS, Apple TV, Fire TV, NVIDIA Shield and android platforms (Google Play).

Space Epic: <https://www.youtube.com/watch?v=oWOKXHvzH6c>

Evil Magic Finger: <https://www.youtube.com/watch?v=PKFn7cX8sf0>

Infinite Overdrive: <http://www.kumatv.com/InfiniteOverdrive/>

 **AIS Programmer/Artist 6/11 to 3/13**

Programmed numerous new features and bugfixes for the PriSim virtual shooting range. Primarily responsible for changes to the TSE and T3D game engine. These duties included C++ and torqueScript programming. Additionally, responsible for creating and editing new 3D art assets using 3DStudio Max.

<http://youtu.be/pfZZjSvemRM>

 **Armageddon Road Lead Designer/Programmer/Artist 6/07 to 4/11**

Developed game-rules, game-play, character models, and character animation (including facial lip syncing). Developed Artificial Intelligence, Ranged and Melee Combat systems, save game system, inventory system and many other programming and debugging tasks. Updated game project through several iterations of the Torque engine. Used 3D Studio Max and MaxScript to develop a tool pipeline for quickly creating destroyed-building models.

<http://youtu.be/HUoGuzHjp38>

 **Multi-Touch Game Programming and Documentation 7/08 to 7/09**

In cooperation with a Microsoft Employee, developed a Windows 7 multi-touch “Cog-Stacking” game example on an HP Touchsmart computer. Responsibilities included designing a small DirectX 9 rendering engine and then porting that engine to DirectX 10. C++ engine code included a basic GUI, model loading, sound effects, music and gameplay. Additional job duties included standard conceptual and reference documentation writing. Cog Stacking is available free from Microsoft as an example of Windows 7 multi-touch technology here:

Video Demo:

<http://www.youtube.com/watch?v=e435Z_WjfpA>

 **Windows Vista Developer Story 6/06 to 6/07**

Wrote documentation to assist developers in adopting Vista for the Windows Vista Developer Story website. Most documentation was oriented toward DirectX . Documentation included code examples.

 **Microsoft DirectX Documentation 2/05 to 2/06**

Worked on DirectX 10 documentation including reference and conceptual material. Built tools to convert old documentation into a new format. Modified build process to add support for different languages.

 **BYFCorp Lead Designer/Programmer 1/04 to 8/04**

Designed and built a PC game demo. Primary duties included writing game specific C++ code on top of the Lithtech Jupiter engine (a DirectX 9 game engine). Other duties included the development of planning documentation creating art resources and converting art into the game engine format.

 **Microsoft Managed DirectX Documentation 5/03 to 11/03**

Wrote conceptual and reference documents for developers. Duties included developing C# code examples and converting existing C++ examples to C#. Developed and maintained a test harness for managed code examples. All documentation was written in XML.

**Education**

**Post-Graduate Applied Information Technology Certificate**,

**Information Technology Institute, Denver Colorado**. October 2000.

**BA in English and Communication, Lewis & Clark College, Portland Oregon.**

December 1998.