

Brent Campbell

Game Programmer

9433 146th Cir NE Apt A104
Bothell WA, 98011
Phone: (425) 818-3181
Email: bcampbel@digipen.edu
Website: campbellcode.com

Education *DigiPen Institute Of Technology, Redmond, WA (2003-2007)*
Bachelor of Science in Real Time Interactive Simulation (Computer Science)
Minor in Mathematics.

Skills *Programming Experience:*
C and C++ (5 years), DirectX (3 years), Shader Programming (2 years), Audio Programming (2 years), Tools Programming (1 year), C# (1 year), Scripting Languages (LUA/Python) (1 year), Web Languages (HTML/PHP/SQL) (1 year)

Technical Knowledge:
Linear Algebra, Calculus, Combinatorics, Spline Math, Quaternions, Software Rendering, Ray Tracing, Rigid-Body Physics, Hamiltonian Physics, Numerical Analysis

General Skills:
Leading, Teaching, Testing, Technical and Game Designing, Communicating, Researching

Employment *DigiPen IT Worker/Help Desk, Redmond, WA (2004-2005)*
Helped to make sure the DigiPen school network was running smoothly, helped students with solving technical problems and handled putting together computers for the school.

Nintendo Product Tester, Redmond, WA (2007-Present)
Tested games for quality control, followed test plans created by superiors, reported all problems found through a proprietary bug reporting system and confirmed the correction of any and all reported problems to ensure games were as bug and glitch free as possible.

College Projects *Planar Retainer: 3D Arena Space Shooter - Senior Project - 3 Person Team*

- Programmed an extensive command-based Input Engine utilizing DirectInput for game input and Windows messages for console typing.
- Created a simple, optimized Physics Engine designed to present a non-realistic but coherent physics simulation.
- Programmed a basic 3D Sound System with the ability to use player-provided files, playlists or folders as the background music.
- Acted as the team's Technical Director and handled the majority of bug finding and fixing.

Robot Apocalypse Racer: 3D Arena Battle Racer - Junior Project - 4 Person Team

- Acted as a game programmer and the team's Technical Director where I designed and created the basic underlying engine structure for the game.
- Programmed a Direct3D9c Graphics Engine that could render using the fixed-function pipeline or using shaders (2.0). This allowed one to switch between the two rendering modes while the game was running.
- Created simple particle system using hardware accelerated point sprites.
- Invented random map generator that features rolling hills and height-based terrain changes.

TCubed: 2D Exploration Action Platformer - Sophomore Project - 4 Person Team

- Implemented a simple Input Engine using DirectInput with the ability to change key bindings
- Programmed a robust Sound Engine that could use both DirectSound and fmod. It was possible to switch between the two sound modes while the game was running.
- Created tool to allow players to provide playlists, songs, and/or folders for the game to use for specific levels or the entire game as a whole.
- Designed and programmed the game's UI.