

Wesley Yue

5720 Lunsford Road #4240, Plano, TX 75024
(408) 417-0279
wesley.yue@gmail.com

EXPERIENCE

6 Shooter Showdown: Poker

SpiderMonk Entertainment, Dallas, Texas October 2004 – February 2005

- **Programmer**, cell phone game published February 2005.
- Wrote logic for recognizing poker hands in 5 Card Draw and Holdem, including searching for best hands with wild cards.
- Implemented menu and HUD navigation.
- Programmed several animated HUD elements.

Nitrate

July 2005 – December 2005

- **Programmer lead**, vehicle-based multiplayer combat game using Half Life 2 SDK.
- Implemented support for damaging and destroying vehicles, and having players respawn inside vehicles.
- Created weapon effects for all primary and special weapons.
- Software lead on a team of four programmers, fourteen people total.

Divine Intervention

September 2004 – December 2004

- **Programmer and project lead**, Unreal Tournament 2004 mod where angels and demons fight each other.
- Created effects for four different weapons, each with a primary and alternate fire mode.
- Created effects for six special attacks.
- Programmed persistent item pickups that provide benefit to the player's entire team.
- Directed, recorded, and edited the game's trailer.

Black Wind Advance

July 2005 – September 2005

- **Sole programmer**, port of Black Wind to the Gameboy Advance.
- Scaled down all aspects of original game to meet console memory and CPU requirements.
- Rewrote most code to take advantage of GBA sprite hardware.

Black Wind

July 2004 – September 2004

- **Sole programmer**, 2D side scrolling space shooter for Windows.
- Programmed a software rendering engine, including transparency blits, alpha blits, stretch blits with bilinear filtering, and a bitmap loader.
- Wrote all gameplay logic, special effects, collision detection and response, HUD elements and menus.

EDUCATION

Guildhall at Southern Methodist University, Plano, Texas

Certification in Digital Game Development, Software Development, December 2005
Overall GPA: 3.78

San José State University, San José, CA

Bachelor of Science, Computer Science, May 2004
Minor in Mathematics
Overall GPA: 3.72

GAME PROGRAMMING

Scripting Engine

- Designed a programming language with syntax similar to C. Built in support for string and vector operations.
- Created lexer, parser, byte code compiler, and virtual machine.

Wesley Yue

5720 Lunsford Road #4240, Plano, TX 75024

(408) 417-0279

wesley.yue@gmail.com

GAME PROGRAMMING

3D Rendering Engine

- 3D math library with vectors, matrices, quaternions and volume intersection tests.
- Scene graph hierarchy with view frustum culling.
- Material system using shaders in both HLSL and OpenGL Shading Language.
- Skeletal animation system with quaternion interpolation and skinning using shaders.

3DS Max 6 Exporter

- Vertex, normals, and animation exporter from 3DS Max 6 into a proprietary file format.
- Wrote importer for rendering engine.

Landscape Engine

- Terrain rendering engine based on height maps. Included level of detail and stitching optimization.
- Implemented A* pathfinding algorithm to find paths through terrain.

Squad AI

- Programmed group AI so that commanders, scouts, footmen and archers work cohesively in a squad.
- Implemented tactics so that two squads can fight each other, including ambushes, pincers, defenses and retreats.

Quake 2 Modification

- Worked on team of five programmers to modify the *Quake 2* engine.
- Changed *Quake 2* rendering pipeline to use GL shaders.
- Created shader compositing system that parses multiple shaders and composes them into a single, new shader.
- Wrote bump mapping shader.

RPG Toolkit – KA3D

- Worked on team of four programmers to convert the KA3D engine into a role-playing game framework, including leveling, inventories, dialogs, quests, and combat.
- Programmed character statistics based combat and leveling system.
- Created effects for four spells.

SKILLS

C, C++, Java, DirectX, Direct3D, HLSL, OpenGL, GLSL, Lua, UnrealScript, 3D Math, Physics, Networking, A* Pathfinding, Artificial Intelligence, Shaders, Half Life 2 Source SDK, HTML, Windows 2000/XP, Word, Excel, Project, Visual Studio .Net, Visual SourceSafe, Subversion, Adobe Photoshop, Premiere, 3ds Max