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Skills:

Programming Languages & Markup Languages	C/C++, Assembly Language (x86 & 6502), Perl, Lua, Python, HLSL, SQL, Flash Action Script, XML, JavaScript
API's	DirectX, STL, Gamebryo, Renderware, BigWorld, Scaleform, FMOD, Win32
Platforms	Windows (95/98/ME/2K/XP/Vista), Playstation 3, Gameboy DS, Wii, Various flavors of Unix
Development Software	Microsoft Visual Studio (4.0 – 2005), GCC, Radix, Code Warrior, Wing, ProDG Debugger for Playstation 3, SN Tuner for Playstation 3, nVidia PerfHud, Perforce, CVS, SVN, Alienbrain
Game Credits	Unannounced MMO (PC) Drawn to Life: The Next Chapter (Wii) Brain Quest, grades 3 & 4 (DS) Brain Quest, grades 5 & 6 (DS) Rat Race (PS3) Barbie Diaries: High School Mystery (PC) Sim City 3000 (PC)

Professional Experience:

Programmer; June 2009 – Oct 2009

Slipgate Ironworks; San Francisco, CA

- Integrated Scaleform 3.0 and wrote an abstract interface for communication between the flash layer and the game layer
- Wrote system for creating and displaying plaques (aka billboards) in the world, which could be textured using a flash movie
- Worked on back-end infrastructure to allow Flash mini-games to be easily created and dropped into the core game

Programmer; April 2008 – March 2009

Planet Moon Studios; San Francisco, CA

- Drawn to Life: The Next Chapter (Wii):
 - Designed and built the Artificial Intelligence system from the ground up
 - Integrated all enemies & NPC's into the game
 - Wrote the system for saving and loading the game
 - Kept a running tab of all anticipated lot check issues in preparation for certification
- Brain Quest (DS):
 - Wrote the achievements system
 - Helped write the sticker book and sticker dioramas
 - Wrote the Sudoku game

Co-Author of Game Coding Complete, 3rd Edition, published by Charles River Media

- Wrote Chapter 17: An Introduction to Game AI
- Wrote a sample path finding system using A*
- Wrote a simple state machine for AI states

- Touched upon various advanced AI topics, such as Decision Trees, Utility-Based AI, Fuzzy Logic, and more

Software Engineer; Dec 2005 – April 2008

Super-Ego Games; San Francisco, CA

- Wrote various subsystems from scratch including the mini-map, the input system, the camera manager, the wardrobe, the bonus buck system, and various others
- Took over the existing AI and pathing systems
- Created a friendship matrix which added depth and realism to the AI
- Ran the game through SN Tuner and Visual Studio Team Suite's profiler to find and correct performance bottlenecks
- Helped write the hardware abstraction layer to switch from PC to Playstation 3
- Helped move off of the Renderware engine and onto the Gamebryo engine
- Took over the Lua integration
- Implemented many of the mini-games and worked closely with the designers to ensure their vision was properly executed
- Touched every aspect of the game engine at one time or another

Technical Support Engineer; April, 2005 – November 2005

Success Factors; San Mateo, CA

- Wrote several programs to automate tasks within the Customer Success team
- Created SQL scripts to fix customer data issues
- Updated XML templates to customize the look & feel of various forms and components
- Wrote several small Java apps to fix low-level issues with the form objects

Customer Experience Analyst Manager; April 2000 – February 2005

Ofoto, Inc. (subsidiary of Kodak); Emeryville, CA

- Managed a team whose primary responsibilities included: administrating all the Customer Service systems, performing all operational reporting, and any other duties that didn't have a clear owner.
- Designed and wrote several tools for Customer Service and the Lab including: a returns and refunds database, a customer contact logging tool, a searchable coupon and promotions database, a callback tracker, a representative quality assurance tool, a simple file encryption program, a URL string parser, and an ASCII translator (to replace all Win32-specific characters in a selection of text with standard ASCII characters)

Technical Support; April, 1999 – December 1999

Microprose; Alameda, CA

- Acted as liaison to provide the Customer Support perspective to Product Development.
- Worked directly with the Lead Designer of Master of Magic to provide insight and learn about the process of creating a game
- Handled incoming calls and emails regarding Microprose products

Quality Assurance; August, 1998 – March 1999

Maxis; Walnut Creek, CA

- Tested Sim City 3000 and logged all deficiencies
- Ran the game in the debugger to catch crashes and sent the relevant information to the engineers for quick resolution.
- Helped with the debugging process by setting break points, tracing through code, etc.

Personal Experience:

- Bleach Engine:
 - Wrote a fully featured 2D game engine from scratch. All projects listed in this section use that engine except for the Tetris Clone and Farmer Bill's Almond Farm.
 - Uses Direct 3D with a fixed camera position

- Entity/property component system
- Complex streaming tile system
- Multithreaded Resource Manager with cache prediction/flushing
- Fuzzy 2D animation system (allows you to tell the system to play a type of animation and it will choose an appropriate one from that set)
- Simple Shader system (uses HLSL)
- Simple particle system
- Hierarchical GUI system
- Data-driven input system
- Event and process systems
- tolua++ integration
- Efficient collision system using Quadtrees
- Abstract logging system that spawns a console window for spew and input back to the engine
- Steph in Dreamland:
 - <http://www.bleachkitty.com/PersonalGames/StephInDreamland/>
- AI swarm tech demo (there's a good story behind this one):
 - <http://www.bleachkitty.com/downloads/apps/swarm.zip>
- *Very* sappy love letter/scavenger hunt to my girlfriend at the time. Download it if you dare:
 - <http://www.bleachkitty.com/PersonalGames/TheRavenAndTheBunny/>
- Simple command-line blackjack game written in Perl:
 - <http://www.bleachkitty.com/PersonalGames/Blackjack/>
- Tetris Clone:
 - <http://www.bleachkitty.com/PersonalGames/Tetris/>
- Farmer Bill's Almond Farm:
 - <http://www.bleachkitty.com/PersonalGames/FarmerBill/>

Education:

Associate of Applied Science in Electronics & Computers Technology
 Heald Institute of Technology; Martinez, CA
 Graduated July 1998