

**Leon Hartwig**  
Austin, Texas, USA  
[leon+resume@hartwigonline.com](mailto:leon+resume@hartwigonline.com)

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## QUALIFICATIONS

Software engineer with thirteen years of experience in the games industry. Primary areas of interest and expertise are AI, gameplay, and multiplayer systems.

## EXPERIENCE

**Senior Programmer**, [Zenimax – Arkane Studios](#), Austin, TX (Aug 2011 – Sep 2013)

- **[Dishonored](#) (PC, Xbox 360, PS3)**: 1<sup>st</sup> person stealth action/adventure game (**Unreal 3**).
  - AI characters and behaviors in C++: [Tallboy](#), [Wolfhound](#), [River Krust](#), [Butcher](#), [Gravehound](#).

**Senior Programmer**, [Zenimax – id Software](#), Richardson, TX (Aug 2010 – Aug 2011)

- **[Doom 4](#) (PC, Xbox 360, PS3)**: 1<sup>st</sup> person shooter game (**idTech 5**).
  - AI characters and behaviors in C++.

**AI/Gameplay Programmer**, [2K Marin](#), Novato, CA (Mar 2008 – Jul 2010)

- **[The Bureau: XCOM Declassified](#) (PC, Xbox 360)**: 1<sup>st</sup> person shooter game (**Unreal 3**).
  - Performed initial groundwork to expand a single player vertical slice to support multiple players.
  - Implemented incapacitation and revival mechanics for multiplayer co-op.
  - Created a co-op game pace manager inspired by the [AI Director](#) of [Left 4 Dead](#).
- **[Bioshock 2](#) (PC, Xbox 360, PS3)**: 1<sup>st</sup> person shooter game (**Unreal 2.5**).
  - Contributed to AI, gameplay, and tools using C++, UnrealScript and UnrealEd.
  - AI character and behavior implementation: [Brute Splicer](#), [Big Sister](#), [Alpha Series Big Daddy](#).
  - Prototyped the player Drill Dash ability and other underwater player movement and abilities.

**Senior Programmer**, [Sega – Secret Level Inc.](#), San Francisco, CA (Jan 2007 – Mar 2008)

- **[Golden Axe: Beast Rider](#) (Xbox 360, PS3)**: 3<sup>rd</sup> person action/adventure 3D combat game.
- Created a tactical AI system that executed behaviors created in a visual state machine editor.
- Led a small group of AI designers and scripters, enabling them to implement character behaviors.

**Programmer**, [BottleRocket Entertainment](#), San Diego, CA (Oct 2005 – Jan 2007 )

- **[Xiaolin Showdown](#) (PS2, PSP)**: 3<sup>rd</sup> person arena fighting 3D action game.
- Created an effects scripting and simulation system, along with a GUI tool to edit and preview effects.
- Implemented save/load systems and managed TRC compliance for memory cards.

**Software Engineer**, [Valve Corporation](#), Bellevue, WA (Jan 2000 – Oct 2003)

- **[Counter-Strike](#), [Half-Life](#), [Team Fortress](#), [Day of Defeat](#), [Half-Life Source](#)** 1<sup>st</sup> person shooter games
- Developed 1<sup>st</sup> person shooter games for **PC** using C and C++.
- Implemented NPC AI, game rules, weapons, HUD, effects, and world objects.
- Added multiplayer features and addressed security issues in multiplayer components.

**Software Engineer**, Independent (May 1999 – Jan 2000)

- Developed **[Phineas Bot](#)**, a multiplayer AI (“bot”) for **[Half-Life](#)**, using C and C++.

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### SKILLS

- Platforms: **PC, Xbox 360, PS3, PS2, PSP**
- Languages: **C, C++, C#, Lua, UnrealScript**
- Engines: **idTech, Unreal, Half-Life, Source**
- Middleware: **Havok Behavior, XNA**
- Design tools: **UnrealEd, Hammer, Maya** (as a design tool via plug-ins)
  
- Proficiency in many tools related to game software development, including:
  - Microsoft Visual Studio
  - Dev kits for Xbox 360, PS3, PS2, and PSP
  - ProDG tools for building and debugging on PS3, PS2 and PSP
  - GCC, Makefiles, and related building tools
  - Perforce, Subversion, Microsoft Visual Source Safe, CVS
  - Hansoft, JIRA, Bugzilla, TestTrack, Mantis, PVCS Tracker, Software Planner, ALMComplete
  
- General understanding of most game subsystems such as gameplay, AI, animation, physics, client/server networking and messaging, input, and HUD.
- Familiar with cross-platform development, environments, and processes.
- Ability to work through problems by using not only personal knowledge, but also the wisdom of other people and sources such as books and the Internet.
- Strong ability to communicate with designers, animators, and artists to help them with day to day issues and enable them to add content and features to the game.
- A proactive interest in spreading good development processes and practices to my team and my company.

### EDUCATION

Western Michigan University (September 1996 – April 2001)

Majors: Computer Science, Philosophy

Minors: Mathematics, Astronomy

Organizations: Upsilon Pi Epsilon (Honor Society for Computing Sciences)