SARAH HERZOG

github.com/Jiyambi/Portfolio | 07936 434640 | sarah.ann.herzog@gmail.com

Objective

Well-rounded post-graduate student seeking an entry level position as a game programmer.

Key Skills

Programming

- Languages: C++, Java, C#, JavaScript, Action Script 3, Lua.
- Confident with various data structures, algorithms, design patterns.
- AI techniques: pattern movement, finite state machines, fuzzy logic, genetic algorithms.

Development Tools

- IDEs, compilers, debuggers: Visual Studio, Eclipse, g++, gdb, Valgrind.
- Version control: SVN, Git, GitHub.com.
- Game libraries and engines: Allegro, DirectX, XNA, Flat Red Ball, Unity, Havok.

Teamwork and Leadership

- Programmed in game development teams at Abertay University and in the Scottish Game Jam.
- Currently leading a team to develop a mobile game as part of the Abertay Game Development Society.
- At wow-pro.com, led a small international development team of volunteers.
- Was part of a team which created several tools to improve the Intel smart TV quality assurance process.
- Participated in various university group projects, both as a leader and team member.

Communication

- Experienced in relating technical knowledge to non-technical audiences, both as writing and in presentations.
- Authored official report for a National Science Foundation educational grant.
- Taught after school science classes for primary school children.
- Wrote, recorded, and voiced an informational video advertising the wow-pro.com addon.
- Maintain a blog covering a wide array of gaming industry subjects at jiyambi.blogspot.com.

Projects

Racing Game Fuzzy Logic Controller Tuned With Genetic Algorithms

Web location: https://github.com/Jiyambi/Portfolio/wiki/Fuzzy-Logic-Controller-with-Genetic-Algorithms
This JavaScript and HTML5 project demonstrates the use of a fuzzy inference system to control a car in a racing game. It allows full customisation of the controller settings, including membership functions and rules. The final section of the application explores the tuning of a fuzzy controller using genetic algorithms.

DirectX Sample Scene – Solar System Exploration

Web location: https://github.com/Jiyambi/Portfolio/wiki/DirectX-Sample-Scene-–-Solar-System-Exploration
This C++ project demonstrates familiarity with various features of DirectX 11. It simulates a solar system with various spheres orbiting about the sun. The scene showcases 3D models, 2D overlays, in-scene point lighting, a particle system, skybox, text FPS and CPU usage display, Direct Input camera controls, and Direct Sound music and sound effects.

Denizen Pop – Game for the 2013 Scottish Game Jam

Web location: https://github.com/Jiyambi/Portfolio/wiki/Game-Jam:-Denizen-Pop
This Unity and C# game is a 2D infinite runner style game referencing recent issues with horse meat in burgers. The game was created in 48 hours with a team of three.

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Work

07/2011 – 08/2012 | Quality Assurance Intern | Intel, Hillsboro OR, USA

Member of the quality assurance team responsible for testing the Intel smart TV Flash plugin. Basic responsibilities included device set up, test operation, and results reporting. Trained new employees. Developed multiple tools to streamline the QA process and improve team efficiency. Team efforts resulted in official Adobe certification for the Intel smart TV platform.

04/2010 – 12/2010 | Lead Addon Developer | www.wow-pro.com, International

Led an extensive, globe-spanning team of volunteers in the development of a World of Warcraft addon which brought wow-pro.com strategy guides directly into the game. Created a simplified language and Lua-based interpreter, as well as a companion guide recording addon, to allow non-experts to create content. Resulting addon was massively popular, with over 200,000 downloads to date. The product was recommended by several high profile websites within the WoW community, including WoW Insider (wow.joystiq.com).

01/2010 – 09/2010 | Science Instructor | Mad Science, Seattle WA, USA
06/2008 – 12/2008 | Engineering R&D Intern | ATI Wah Chang, Albany OR, USA
09/2007 – 06/2008 | Engineering Education Research | OSU Chemical Engineering, USA
04/2007 – 09/2007 | Facilities Engineering Intern | ON Semiconductor, Gresham OR, USA
07/2006 – 11/2007 | Computer Technician | OSU Technology Support Services, USA

Previous career resulted in many valuable life experiences. Provided huge benefits to previous employers, including the addition of a new stage to the production process at Wah Chang, and the implementation of a piping change saving ON Semiconductor $10,000 yearly. Gained familiarity with high responsibility situations, such as handling hazardous chemicals and operating powerful machinery. Gained experience presenting results, troubleshooting, and providing customer service.

Education

University of Abertay 2014 – MSc Computer Games Technology – *In Progress, Feb. 2014 Graduation*

Dissertation in the field of artificial intelligence

Portland State University, USA, 2012 – Computer Science Advanced Degree Preparation

Additional Coursework in Visual Design and Music

Oregon State University, USA, 2009 – BSc Chemical Engineering, *Cum Laude*

Additional Coursework in Business Law, Marketing, and Entrepreneurship

Awards

Scottish Saltire Scholarship - £2,000, awarded to 200 international students to study in Scotland.

Abertay Academic Excellence Award - £3,000, awarded to those who have academic merit significantly above the normal requirement for the chosen degree program.

References

Academic

Dr. David King, d.king@abertay.ac.uk, Director of Academic Programmes, SECAM, Abertay University

Professional

Mr. Charley Faivre, faivre.charley@gmail.com, Owner and Administrator of wow-pro.com
Mr. Christopher Sauvageau, christopher.sauvageau@intel.com, QA Manager, Intel