

John Alexander Robertson

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Profile:

I am an enthusiastic and motivated person who has an interest in all areas of Computing. My degree in Computing Science has given me a diverse experience in the field whilst also allowing me to specialize in the areas that interest me the most, namely AI, Distributed Systems and Algorithms. I've had the benefit of working on a number of software development projects of varying size in both a team and individual capacity and feel comfortable in both roles.

Since completing my degree I've had the opportunity to use and expand upon my skill set as a software engineer in a professional environment. Implementing bespoke solutions has meant that I've had to respond to rapid changes in requirements, which is part of what I enjoy most about programming. I've taken projects from inception through to development and deployment while maintaining continuous contact with clients.

I consider myself a flexible programmer who is able to take my knowledge and coding practices and apply them to any language or environment. I enjoy programming both in and out of work and as an avid gamer a lot of my spare time is devoted to writing games for the pc and mobile phone platforms.

Education:

University of Glasgow

2001-2005: Upper 2nd class BSc (Honours) Computing Science

Elective modules: Distributed Algorithms and Systems, Advanced Algorithms, Safety Critical Systems.

Dumfries Academy

2001 6th year: CSYS Maths A, Advanced Higher Chemistry B, Advanced Higher Physics C, Prize for Chemistry

2000 5th year: Higher Maths A, Higher Chemistry A, Higher Information Systems B, Higher Physics B, Higher English C, Prize for Mathematics

1999 4th year: Standard Grade: Maths 1, English 2, Computing 1, Physics 1, Chemistry 1, French 1, Craft Design and Technology 1, Geography 1, SVS 1

Work Experience:

November 2005 – Current: **Software Engineer at Sims Group**

Since graduating I've been a part of Sims Group, one of the world's largest recyclers of computer electronics. Key responsibilities include the development of bespoke web based solutions to handle reverse logistics. This is achieved using a combination of technologies: ASP, ASP.NET, VB.NET SQL Server and JavaScript. I also maintain some of our existing systems to meet additional client requirements and enhance others through the introduction of newer technologies. When deploying a new project or release I will be involved in the migration code and procedures from development through to test and live environments. Other areas of my work include developing in-house software to aid internal reporting requirements, rapid prototyping and network and database administration.

One of the first projects I was given responsibility over was to develop an online returns system with a DBMS backend for Sun Microsystems customers. The system was trialled in Europe April 2007 and is now being used by UK and German Sun customers with more countries to follow soon. More recently I managed a large project for Cisco Systems. The aim was to completely automate how we handled their returns process. This involved working closely with Cisco to identify the requirements and key stages of the process. This system was trialled in July 2007 and is now being used successfully throughout Europe.

Other Experience:

4th year University Project:

My final year individual project was to evaluate “life and death” problems for the game [Go](#). This is a Java program which allows the user to load a preset problem (board configuration) from file or specify a new one on the GUI. The interface is then used to identify the “live” part of the board and select which player gets to move first. The program then works out the optimal move for that player or indicates that no move can be played.

During this project I had to implement the game search algorithms Minimax and AlphaBeta along with a move generator and legality checker. Additionally a number of heuristics were written to aid the algorithms; this involved recognising certain patterns that were considered strong positions. This project also allowed me to strengthen my user interface design and layout skills using Java Swing.

3rd year University Project:

The aim of this team project was to build a system for real-time streaming audio, which is resilient to the effects of network problems. This involved taking MP3 files, breaking them into their component frames, streaming them to another computer using UDP/IP via a gateway and playing them through an audio player. The gateway was written to take a number of parameters to simulate typical network problems so that corrective techniques could be investigated.

In particular I wrote an audio player in Java that played the resultant frames. Additionally I helped integrate an open source decoder to use on the source files.

Summary of Skills:

Programming languages:

Java (J2SE, J2ME), Visual Basic (v6, .NET), Haskell, C, some C++, Ada95, some Ruby,

Web Technologies:

PHP, ASP, ASP.NET, AJAX.Net, XHTML, Javascript, CSS, XML, AJAX

Other Technologies:

Oracle, SQL Server (2000, 2005), MySQL, Open Office, Microsoft Office, Dreamweaver, Eclipse, Emacs, Visual Studio, Adobe Photoshop

Interests:

One of my longest running interests is playing videogames; I particularly enjoy RPG's, RTS's and FPS's. I also enjoy writing games as it affords me the opportunity to explore my creative side, from character and story design to tile drawing, while also giving me an insight into game mechanics and resource management.

A couple of years ago I started developing a game in J2ME for the Nokia 6600. This originated from a competition entry for [Dare to be Digital](#) which involved a 10 week team program to design and implement a videogame. Our pitch was a top down multiplayer shooter for mobile phones. Our team was ranked 7th out of 30 teams, unfortunately only the top 6 moved forward to the actual competition.

I decided to use some of that summer to outline a 2D tile based dungeon crawler, *Seven Seals*. Since then I've been working on it off and on amongst other projects and I recently ported the code to the Sony Ericsson k610i. Written from scratch some features include, interactive scenery, item pickups, trigger based events, scriptable enemies and player weapons.

Last year I also started a paired project with a fellow Glasgow Graduate to write a top down scrolling shooter for the PC. We have currently suspended development to focus on testing/debugging as well as writing some tools to aid in level creation, but intend to return to it soon.

When I'm not programming I can often be found updating my website <http://www.theazure.co.uk>. This was originally started from the desire to improve my web design and knowledge, though I now actively use it to track past and present projects that I've done in my spare time.

Some more active pursuits include running, which I've had an interest in since high school and cycling. I've also recently taken up Karate.

References:

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