Paul Shields

Personal Information:

    Address:
    Mobile:
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Education:

2010 – 2015, Queen's University, Belfast   MEng Computer Games Development   1st Class Honours

Level 1:		Level 2:		Level 3:		Level 4:	
Programming Challenges	97	Games Programming	88	Concurrent Programming	81	High Performance Computing	77
Programming Fundamentals	93	SE & Group Project	78	Agile & Component Dev.	75	Innovation & Entrepreneurship	72
Computer Architecture	92	Programming in C and C++	72	Game Engine Dev.	70	Algorithms: Analysis & App.	71
Introduction to Multimedia II	88	Networks & Comm.	72	Artificial Intelligence	56	Individual Research Project	61
Game Design I	63	Prof. Computing Practice	71	Advanced Visualisation	77	Advanced SE	60
Introduction to Multimedia I	62	Data Structures &Algorithms	71				
		Tournaments in Computing	60				

2010   A Level: Maths - A*; Further Maths - A; ICT - A; Physics - A
2009   AS Level: Maths - A; Further Maths - A; ICT - A; Physics - A; Chemistry - C
2008   GCSE: ICT - A*; Maths - A*; Additional Maths - A; Physics - A; Biology - B; Chemistry - B;
            English - B; English Literature - B; Geography - B; French – B

IT Skills:

Operating Systems: Windows (XP – 8.1), OS X, Linux (Ubuntu, Linux Mint), Android, iOS.

Developmental Languages: PHP, (X)HTML, CSS, MySQL, JavaScript, Java, C#, C/C++, Prolog.
Frameworks: Spring MVC, Selenium, JQuery.

Applications: Adobe Dreamweaver, Photoshop, Visual Studio, Brackets, Eclipse/Spring Tool Suite, Bash, VirtualBox, FileZilla, GIMP, Notepad++, Microsoft Office.

Hardware Skills: In my own time I have taken apart and repaired video game consoles (Xbox 360, PlayStation 3) as well as building and upgrading a few desktop PCs.

Projects:

- **Level 4**
    - For my research project I worked with WebGL, Three.JS and Unity to build a test suite and scenarios to test the performance and correctness of physics engines in web browsers.
    - I developed a recipe app that suggests recipes based on the ingredients you currently have available, scanned into the app via the barcode or from an image of the product itself.
    - I have been writing parallel applications in C, using OpenMP and MPI, to increase the performance of commonly used algorithms on a cluster server.
- **Level 3**
    - I developed a 2D physics engine in C++ and DirectX, built upon a 3D renderer.
    - I have developed a COLLADA 3D model importer for XNA, which was used in a demo application for animating a 3D model using Kinect skeleton tracking, as well as its voice recognition system.
- **Level 2**
    - I developed a game in XNA for submission to the Games Fleadh 2012 as a team project. We developed a 2D scrolling shooter with multiple levels of difficulty and an online leaderboard.
    - For Software Engineering & Group Project I, as part of a team, developed a video game version for the Game of Life as part of a team. The game was developed in XNA. By utilising the video game format, I added a unique mafia twist to the basic board game system.

Personal Projects:

- **In Depth - GBPS3:** In 2009, the website GiantBomb.com (a website about video games) put out an API for their entire wiki as well as their original content. They are a very video-centric site, putting out videos of 30+ minutes in length. The video content seemed perfectly suited for the laid back nature of a full size TV; however their website does not work well with a sit-back experience. Thus, I developed GBPS3. Built with a PHP and MySQL backend, the website is designed precisely for the large interface needed to easily navigate from a TV display, specifically from the PlayStation 3 console initially. The website and video player is developed to work simply and quickly with the PS3 controller, with comprehensive categorisation

of the various video features Giant Bomb has to allow for an intuitive interface for the user to navigate through.

- **Additional Projects:** Personal portfolio website; Various video games, including Game Jam submissions; Windows & Android apps.

Work Experience

Queens University, Belfast	**Programming Demonstrator**	**2014 – Current**

CME Group	**Software Engineer Intern**	**2013 – 2014**

I worked mostly as a back-end Java developer on a number of web-based applications. Other responsibilities included writing Bash scripts for Unix environments, writing Selenium front-end tests and building computers for The Simon Community.

Tesco Springhill, Bangor	**Customer Assistant**	**2010 – 2013**

Checkout operator, also involved in assisting customers wherever needed and shop floor setup.

Level Seven, Belfast	**Website Consultant, 2008;** **Freelance, 2008 – 2010**

I worked at Level Seven for a week's Work Experience, in their CMS management team to design and contribute to their client's websites. After the Work Experience I worked as a freelance contributor with the same work as I had done in their offices.

Oxfam, Bangor	**Volunteer**	**2007 – 2010**

Work Related Skills

Problem Solving: Being on a programing centric degree, I am constantly improving my problem solving skills. In developing and working with physics engines at level 3 and 4, there were often errors as well as mathematical problems that I needed to solve by me due to the unique nature of them.

Good Time Keeping: As I have been working various part time jobs on top of my University career for 4 years, my ability to have good time management has been integral to successfully completing the last few years of both. I am consistently early for lectures and have never been late for work.

Time/Project Management: As my degree includes of a number of projects, I have had to be able to successfully manage multiple deadlines each semester. This has been achieved by managing my own time given to the project appropriately as well as managing the tasks and time of the other members of my teams too.

Initiative and Team Work: Through my degree, part time jobs and work experience, I am constantly working with teams to solve many problems and goals. This has helped develop my initiative and ability to work cohesively with my team, as these are integral to working on a common goal. I feel that I have also developed initiative due to the fact that my manager would leave certain things up to me while I was working and I would have to use my initiative to make sure everything runs smoothly.

Achievements

Full UK Driving Licence; Eliahou Dangoor Scholarship; A-Level Scholarship; Jonathan Mezza Shield for IT. Student member of the British Computer Society.

Interests and Hobbies

I have an interest in charity, participating in the Community Action Team at school and the Raise and Give Society at University. In these I helped participate in various fundraising events ranging from bag packing to abseiling. I have an interest in sports, mainly with Rugby and Formula 1, as well as professional wrestling. I run a few websites personally with various people, managed under the website Muzene.com. I play video games regularly too, as well as keeping up with the gaming industry in general.

References
- Dr Phillip Hanna, Senior Lecturer, Computer Science, QUB, 14 Malone Road, Belfast, BT9 5BN, t | 02890 974634, e | p.hanna@qub.ac.uk
- Mr John Busch, Lecturer, Computer Science, QUB, 1 Elmwood Avenue, Belfast, BT9 6AY, t | 02890 971188, e | j.a.busch@qub.ac.uk