Ben Wallace

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An ambitious and self-motivated Software Engineer with Experience in multiple aspects of Software Development and Agile Practice. As well as a first-class honours Graduate in Computer Science and Game Development from Liverpool John Moore’s University. I am a lateral thinker and keen developer who enjoys the complexity of a project and turning new ideas and thoughts into reality. Throughout my past work experience and related Education, I have acquired a variety of skills covering multiple aspects of game and web development, software engineering, database management, Embedded Systems, Desktop Application and A.I. I am looking for a new challenge within the Software sector and would like an opportunity to apply my skills to a variety of business projects.

**Key Skills**

3D and 2D Computer Graphics and Mathematics | Data Modelling | Game Physics | AI Systems

Agile Software Practice | Git Version Control

C++ Embedded Systems | Desktop Applications

C# Desktop Application Development

WPF Application Development | SQL Database Interrogation

SQL Database Querying | .Net Core and .Net Framework Applications

**Key Attributes**

Strong communication skills

Passion for development

Team player with the strong ability to self-manage.

Problem solving capabilities.

Mathematical skills

Driven by results

**Technical Proficiencies**

* **Visual Studio 2013/15/17/19/22 Application Development -** Used to create simple algorithm-based ASCII games | Code based mathematical calculations and operations | Fully-fledged Solo / Team based Computer Game applications that contain various gameplay functions and features | Object Orientated Programming | Object rendering using different Graphical API’s such as ASCII Renderer and D3D11 Hieroglyphs | C# Desktop Applications including SQL Database Querying and Integration | LUA Scripting | C++ Desktop Application and Embedded Systems Maintenance and Improvements.
* **Linux OS –** Used for Maintaining and Debugging Embedded Systems as well as CLI Interactions with Hardware Systems
* **3DS Max –** Creation and Texturing of various game ready 3D Models with multiple poly counts for each asset ranging from complex geometrical assets to basic objects.
* **Java / JavaScript Web Application Development –** Used withHTML | PHP | Eclipse development Environment.
* **Unity Engine C# –** Used for Artificial intelligence Pathfinding Algorithm Creation in A**.**
* **Python –** Used for Scripting on various projects and applications as well as analysing machine generated data**.**
* **Unreal Engine 4.0 Application Development in both C++ and Blueprint base scripting** - Use of Procedurally generated environments in a 3D virtual world | Animation mapping | Blueprint scripting and C++ coding for various gameplay functions and features | Artificial Intelligence Blackboard and Behaviour tree creation and implementation in both C++ and blueprint scripting | Procedurally generated meshes created in pure C++ algorithms | Physics application demos and full environment creations and entire game concepts implemented in applications that required usage of all major elements and key components of the engine.
* **Microsoft Office And Adobe Photoshop –** Used in Game Production TDD and GDD Documents as well as analytical and financial business forecasting and predictions in Excel using graphs, formulas etc. I also have a deep understanding and knowledge of other software applications included in this suite.
* **Splunk Technology –** Used in searching, monitoring and analysing Machine Generated Data for multiple internal business projects as well as being officially certified as an Administrator for the Software Platform.

**Third Year Research Project in Artificial Intelligence (Grade – l:l)**

My Dissertation focused on pathfinding algorithms, finite state machines and behaviour trees, showing how these have an impact on realism in gameplay for modern day video game A.I. My research included the main pathfinding algorithm types for Artificial intelligence (Dijkstra, A\*, Best/Depth First) and detailed how Behaviour/Decision trees and state machines are used for Actor actions and abilities. I investigated how these algorithms can be applied to real-life scenarios and produced an application that showcased different actor behaviours and abilities within a 3D virtual world which produced different sets of responses based on the given environment around them.

**Applicable Work History**

**Software Engineer at Linx Technologies (A Danaher Company) 2021 – Present (Full Time)**

Within Linx I have multiple responsibilities on a Day-to-Day basis, ranging from Maintaining Current Embedded Systems in Linux, Desktop Programs in Windows as well as being responsible for updating and Re-Writing various Windows based programs including Customer Service applications that are responsible for reading from and writing to Oracle Databases via SQL. As well as applications used by Production teams with a host of functionality ranging from Database interrogation to Communications with Hardware Systems.

**NETbuilder Digital Consultant Software Engineer** **2020 – 2021 (Full Time)**

With NETbuilder my main role was working on a team-based project in partnership with SAP software solutions to produce visualisation Dashboards using machine generated Data (created through SAP’s internal Data Servers). I created an application within the Splunk Platform that ingested the Data provided by SAP and then output Key Business analytics via Dashboard Visualisations, this included packaging the application and creating Python based scripts to interpret the Data. With NETbuilder I also undertook two months of initial training which included official certification to be an administrator for the Splunk Software Platform.

**I.T maintenance Lead at Home Instead West Lancashire And Chorley 2016 – 2019 (Part Time)**

In this role I was responsible for the creation and development of a new archiving database for the business whose ambition was to store over 7 years’ worth of documentation in a paperless format. This involved creating complex and intuitive spreadsheets, working with a new database through an Amazon externally hosted cloud storage server and coordinating with senior staff within the company to future-proof processes and procedures. I also supported the implementation of a new back-office system called People Planner which involved training staff on how to operate the system as well as transferring data between servers in the company.

**Personal Achievements**

**Best Performing Student at Level 6 In BSc Hons** Computer Science in Game Development

During the third year of my degree, I was awarded best performing student at level 6 for work quality and results progress, the certificate was awarded at an awards ceremony in the spring of the academic year.

**Driving License**

**Full UK Driving License**

**Education**

**Liverpool John Moores University 2016 - 2020**

First Class (l:l) BSc Bachelor of Computer Science with Honours in Computer Game Development

**Ormskirk Sixth Form College** **2013 - 2015**

Information Technology - Distinction\*

History – B

Business Studies - Distinction\*

**Ormskirk High School** **2008 - 2013**

7 GCSE’s (Grades B – C)

**References available upon request**