# Joshua Shepherd

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# SUMMARY

An experienced software engineer and games developer, with a demonstrated history of working in the entertainment industry. Skilled in C#, C++, Object-Oriented Programming (OOP), Unity & Unreal Engine. Strong engineering professional with Games Development focused in Computer Science from University of Wolverhampton. Has basic conversational mandarin skills with 3 years of self learning.

# EXPERIENCE

#### Junior Software Engineer Simworx

Create and maintained in house programs using C# and Windows Presentation Foundations (WPF). Used Model-View-ViewModel (MVVM) in all C# WPF programs & used bug tracking software like Trello. Helped to create a in-house show control program using UI & back end. Developed a Unity application to visualize 3/6 Degrees of Freedom (DoF) motion in VR. Helped with companies IT, assisting employees with help

# PROJECTS

#### **Project Boss - University Project**

University of Wolverhampton • May 2021

• Project titled "How can Artificial Intelligence in games adapt to a human player?".

 $\cdot$  Used Unreal Engine to create an adaptable AI

I created an Unreal Engine game designed around an AI enemy using Goal Oriented Action Planning (GOAP). I also used machine learning to help adapt the AI character to the player, allowing it to adapt depending on the player's skill. The AI character has a range of actions to choose from and decides for itself, allowing for a hard fight.

## Quinn's Escape - University Game

University of Wolverhampton • May 2021

• Created a side scrolling 2.5D game using Unreal Engine 4.22, using C++

 $\cdot \, {\rm Created} \, {\rm a} \, {\rm design} \, {\rm document} \, {\rm before} \, {\rm implementation}$ 

Working in a pair, me and another student created a design document to specify our game, before developing and testing. We created a 2.5D, mario inspired game where the player aims to escape by defeating enemies in the fastest time and killing the final boss. I focused on the player input, control and actions, as well as the user interface & sound.

#### Genify

In my spare time while at University, I started working on a website that could detect your current Spotify song and display the relevant lyrics from Genius and also get the music video from Youtube. The project is open source on available on Github and works within a matter of seconds.

#### DotA Clicker VR - Virtual Reality Clicker Game

An unfinished virtual reality game I spent a lot of time and effort on inside Unity. Concept was for a clicker game inside virtual reality using the DotA hero models, map and assets. Currently unreleased & closed source but with public video (https://youtu.be/mZWSmosu5DM)

## **EDUCATION**

#### **BcS Computer Science (Games Development)**

University of Wolverhampton • West Midlands, United Kingdom • 2021

**Diplomas in ICT** TDM Wyre Academy · Birmingham, United Kingdom · 2016

#### **Secondary School Qualifications**

Hillcrest School & Community College • Netherton, United Kingdom • 2012

## SKILLS

Core: C#, C++, C, Python, .NET Framework, Object Orientated Programming, Artificial Intelligence

Tools: Unreal Engine, Unity, Git, Windows Presentation Foundation (WPF), Virtual Reality, Xamarin

Web: HTML(5), CSS, Javascript, Bootstrap, NodeJS, React

## September 2015 - March 2018, Kingswinford, UK