
DANIEL PATEL

GAME DEVELOPER WITH 4 YEARS INDUSTRY EXPERIENCE

Skills

- Unreal
- C++
- Unity
- C#
- SVN

Contact Information

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Personal Statement

A passionate Game Developer with over 4 years of industry experience working in Unreal Engine and Unity; a flexible and independent candidate with a first-class degree in Computer Science.

Possesses both leadership and collaborative skills with the ability to actively participate in team-orientated tasks and scenarios whilst having the confidence and capability to thrive when working autonomously. Looking to further my career by gaining experience working with highly skilled peers.

Programming Experience

EscapeNet - Spiral House — 2023 - Current

Multiplayer game developed in Unreal Engine by Spiral House

- Gained an understanding of the replication system in Unreal. Can efficiently implement gameplay mechanics that function in a multiplayer scenario.
- Developed systems to make use of motion matching. This allowed for smooth animations and for AI anticipate cornering by generating the motion matching trajectory from the navigation path data.
- Optimised parts of the code base using the Significance Manager. This enabled us to achieve higher frame rates by disabling features until the player became within range of requiring them to be active.
- Implemented a utility selection AI behaviour system to allow for complex behaviours whilst maintaining modularity. In addition, created an AI perception system to allow for AI characters to react to different types of stimuli.
- Created a gameplay action framework based off the command pattern. This allowed us to separate different actions into their own classes, which helped us modularise state and maintain simplicity.
- Implemented efficient rendering of objects using vertex animation textures. This allowed us to render hundreds of animating objects on screen. In addition, developed a tool for artists to easily generate the required assets to make use of the system.

Tools Developed

- Created an unreal crash report server. This handles the both the backend for receiving the crash report and provides a simple front end for viewing important information or downloading files.
- Created a blender to Unreal exporter to allow for animation to be created with root motion. Also, allowed for animations to be exported at the correct scale.

PC Building Simulator 2 - Spiral House — 2022-2023

Released simulator game developed in Unity Engine by Spiral House for Epic Publishing

- Created an efficient runtime voxel grid representing PC parts by using compute shaders and the Unity Job System.
- Implemented A* pathfinding algorithm in 3D using the Unity Jobs system. Used this for pathfinding water pipes inside PC cases.
- Created editor tools using Unity UI Toolkit to assist artists with PC part creation workflow.

GMTK Game Jam - 2022, 2023, 2026

48-hour Game Jam in collaboration with 4 other people

- Gained experience in rapidly iterating over designs and ideas.
- Improved ability to quickly prototype game mechanics with strict deadlines.

Newcastle University - 2018 — 2021

- Worked extensively with Java and Python programming language to create a variety of applications including a web scraping tool for the KNIME Analytics platform. This involved OOP as well as working with commercial code.
- Collaborated as part of a team to create a mobile application using Flutter. Held sole responsibility for integrating Google maps into the application. The group demonstrated excellent communication and project management skills and was awarded the Best Team Project Award.

Employment

Game Developer, Spiral House; Liverpool, Merseyside — 2022-Current

General Assistant, Booths; Preston, Lancashire — 2017-2020

General Assistant, T.J.Hughes; Preston, Lancashire — 2016-2017.

Education

Newcastle University — 2018-2021

Computer Science BSc Honours - 1st Class Degree

School of Computing Prize for Best Team Project

Cardinal Newman College — 2016-2018

A Level Mathematics - B Computer Science - C Business Studies - B

Our Lady's Catholic High School — 2011-2016

9 GCSE's (A-C) Including English (B) and Maths (A)

Interests

Travel

Enjoys discovering different cultures, exploring new places and trying new foods.

Computing

Regularly codes on different projects using a variety of different programming languages. Currently building a renderer in Vulkan using Odin Lang

REFERENCES AVAILABLE UPON REQUEST
