# Matthew JENKINSON

Liverpool

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### **GAMES PROGRAMMER**

Tools and generalist Games Programmer with Agile industry experience. A keen problem solver, skilled in delivering games systems, tools, and applications. Enjoys a technical challenge. Has AAA experience for a narrative horror title for the PlayStation 5.

#### **KEY SKILLS**

Software Development | User Focused | Collaboration | Problem Solving | Attention to Detail | Analysis | Research | Team Player | Stakeholder Engagement | Full Development Lifecycle | Agile Methodologies

# **TECHNICAL SKILLS**

Unity 5 & 6 | Unreal Engine 4 & 5 | OpenGL | C & C++ | HLSL & GLSL | C# | Perforce | Visual Studio | JIRA | PHP | JavaScript

# **EXPERIENCE**

#### **Unanounced Studio**

## Roguelike VR Game & Multiplayer VR Game

2024 - 2025

Graphics and Gameplay Programmer, responsible for visual effects, enemy behaviour, and user interactions.

- Created full screen effects without using post-processing to meet the limited hardware requirements
- Created a world-aligned grid material that allowed artists to prototype levels methodologically
- Programmed the enemy AI to make it patrol, search, and attack in a believable manner
- Created objects for players to interact with such as a disarm-able tripwire, destructible trapdoor, and an instant camera

### **FireSprite**

## **AAA Narrative Horror Game**

2022 - 2024

Graphics, Tools, and Engine Programmer, responsible for systems within the game, in-engine tools, and stand-alone applications.

- Devised a wave rendering system as part of the graphics team.
- Created a rain occlusion system for Nanite objects to prevent the rain from clipping through them.
- Created a camera rig, for the cinematics team, allowing them to move the camera in local space rather than world space resulting in not having to calculate their camera moves.
- Made an animation debugging system, this allowed the animation team to see which animations were currently playing, and how far through they were to the end.
- Created a Dialogue Measuring Tape, showing a visual representation of how much further the player could go before reaching the end of a specified line of dialogue.
- Enabled engineers to view performance data captured from the game, in the form of graphs and screenshots.
- Developed a post-processing view-mode, enabling animators and cinematic artists to view the game in the same way that it was rendered in their external tools, making it easier to confirm the animations were displayed correctly.
- Devised an accessibility feature for sight-impaired users, an additional post-processing material that highlighted the outlines of the game characters when they were occluded.
- Undertook pair programming, and frequent and regular code reviews.

## The Persistence Enhanced Edition

2021

Part of the team tasked with creating an enhanced edition of FireSprite's game, The Persistence, for PlayStation 5 and PC.

- Added ray-traced global illumination, reflections, and shadows, as well as Nvidia DLSS to the PC version.
- Ensured elements ran efficiently on the target hardware researching methods to apply ray-tracing technology.
- Added new visual effects to the game, including crepuscular rays and colour-changing lights.
- Created a user interface which allowed existing PS4 players to transfer saved games to a new PS5 console.

#### **The Persistence Switch Port**

2020

Part of the team tasked with porting The Persistence from PSVR to Nintendo Switch.

- Reduced costs by reducing the size of the binary to fit on the smallest game cartridge size.
- Ensured the game could be played intuitively on a Switch by capturing input from the analogue sticks.
- Enabled a second player to interact with the game on a mobile device.
- Ensured the game passed the TRC compliance check, allowing it to be published.
- Optimised the game to run more efficiently on limited hardware.
- Added Chinese language support to the game, allowing it to reach a wider player-base.

# **The Persistence Companion App**

2020

Responsible for the upgrade of the Persistence Companion App, undertaking parity-checking with the previous version, fixing missing text, and adding missing translations.

- Fixed bugs that occurred after the version of Unreal that the game used had been updated.
- Published the new version of the game to the Google Play Store.

# **Creative Audio Visual Experience**

2019

Part of the team responsible for developing a tool to create bonus content applications, and a PS4 app that displayed them.

- Developed PS4 and Windows applications that displayed and organised bonus content into artbooks, soundtracks, and comics, for existing Sony titles.
- Created a text embedding system that fixed vector text onto raster images so that they could be displayed efficiently on the console in multiple languages.
- Created a collision-detection system that prevented interactive regions from overlapping.

# **EDUCATION**

BSc (Hons) Games Development Edinburgh Napier University 1 year studying abroad at Hogeschool van Amsterdam

### **OTHER INTERESTS**

- Playing bass guitar | Baking | Photography | Activism
- Volunteering as a lead participant in a fan-translation group for Asian comics and manga, as part of a multi-disciplinary and multi-cultural team across a range of time-zones.
- Developing post-processing shaders, and websites, using GLSL, PHP, JavaScript, and other languages.
- Developing a working knowledge of new technologies and the expertise that underpins them.