

# Declan Murray

Junior Game Developer

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Game Development graduate from Abertay University with a summer placement at **Playground Games** (Forza Horizon). Published **2 games on itch.io** with a combined 4,700 downloads. Won the Abertay Game Jam twice. Proficient in **Unity (C#) and Unreal Engine 5 (C++)**, with experience in gameplay programming, AI systems, and performance optimisation. GitHub: [github.com/declan-murray-dev](https://github.com/declan-murray-dev).

## EXPERIENCE

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**Gameplay Programmer (Summer Placement)**, Playground Games, Leamington Spa Jun 2024 – Sep 2024

Summer placement in the gameplay team at the studio behind Forza Horizon.

- Implemented **AI pathfinding improvements** for non-player traffic in C++, reducing path recalculation frequency by **35%**
- Optimised a vehicle physics subsystem that improved frame rate from **45fps to a stable 60fps** on target hardware during stress tests
- Fixed **23 bugs** across gameplay, UI, and audio systems during a 4 week pre-release QA phase
- Participated in **daily stand-ups** with a team of 8 programmers and attended weekly cross-discipline reviews with artists and designers

**Student Lab Demonstrator (Part-time)**, Abertay University, Dundee Sep 2023 – May 2025

Part-time demonstrator for the first year Game Programming module.

- Assisted **45 students** per session with C++ fundamentals, Unity scripting, and debugging techniques
- Marked **90 programming assignments** across 2 semesters, providing written feedback on code quality

## EDUCATION

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**BSc (Hons) Game Development in Game Development**, Abertay University, Dundee Sep 2022 – Jun 2025

First Class Honours (1st, **75% average**). Honours project, a procedural dungeon generator in Unity, received **80%** and was demonstrated at the **Dare Academy showcase**.

- Relevant modules: Game Programming (C++, C#), AI for Games, Computer Graphics, Software Engineering, Game Design
- Completed summer placement at Playground Games (see experience above)

## SKILLS

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Unity (C#), Unreal Engine 5 (C++, Blueprints), C++ (STL, Memory Management), C# (.NET), Git & Perforce (Version Control), AI Programming (Pathfinding, Behaviour Trees, State Machines), Physics & Collision Systems, Shader Programming (HLSL basics), Performance Profiling (Unity Profiler, Unreal Insights), Agile / Scrum Workflows, JIRA (Task Tracking), Python (Tooling Scripts)

## CERTIFICATIONS

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**Unity Certified Developer**, Unity Technologies Feb 2025 – Feb 2027

**Unreal Engine 5 C++ Developer (Udemy, GameDev.tv)**, GameDev.tv Jan 2024 – Jun 2024

## LANGUAGES

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English - Native

## PROJECTS

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### Hollow Depths (Published on itch.io)

*Oct 2024 – Mar 2025*

A roguelike dungeon crawler built in Unity with procedurally generated levels.

- Published on itch.io with **3,100 downloads** and an average rating of **4.2/5** from 89 reviews
- Implemented **procedural level generation** using BSP trees with guaranteed connectivity between rooms
- Built an **enemy AI system** using behaviour trees with 6 enemy types and scalable difficulty

### Abertay Game Jam – Signal Lost (48 Hours)

*Jan 2025 – Jan 2025*

Led a team of 4 (2 programmers, 1 artist, 1 designer) to build a puzzle game in 48 hours.

- Won **first place** out of 18 teams (72 participants)
- Programmed the entire **puzzle mechanics and UI system** in Unity within the jam timeframe
- Game was downloaded **410 times** on itch.io in the first 2 weeks

## REFERENCES

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**Laura Sheridan**, Lead Gameplay Programmer, Playground Games, [laura.sheridan@playground-games.com](mailto:laura.sheridan@playground-games.com), +44 7700 900 719

## EXTRA CURRICULAR ACTIVITY

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### President – Abertay Game Development Society

*Sep 2024 – Jun 2025*

Led a society of **120 members**. Organised the annual game jam (**72 participants**), weekly playtesting sessions, and 4 industry speaker events with developers from Rockstar North and Ninja Theory.

### GitHub – Active Open Source Contributor

*Jun 2023*

Maintain **12 public repositories** including Unity tools, AI demos, and game prototypes. Total of **230 stars** across all repos. Contributed bug fixes to 2 open source Unity packages.