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Martin Micklethwaite

Senior Gameplay Engineer

Expertise

- Unity / C#
- Unreal Engine / C++
- Gameplay Systems
- 3D Maths & Physics

Work

2024-Present | Independent Game Developer (UK)

(Self-directed prototyping & creative exploration following Wonderstorm layoff)

- Designed and prototyped a new unannounced exploration-based puzzle game (Unity/C#)
- Participated in several game jams, earning awards in the Science Remix Game Jam (2025)
- Developed a reusable Unity library for game architecture, gameplay systems and maths tooling
- Took intentional time for recovery and relocation after studio closure

2021-2024 | Gameplay Engineer (Wonderstorm)

"The Dragon Prince: Xadia", a co-operative ARPG - Preview release 12/2024
Unreal Engine | C++ | custom Racket-based scripting

- Collaborated closely with designers, artists and audio to prototype, implement and iterate on gameplay features
- Implemented combat features including playable characters, abilities, NPCs behaviours and targeting logic
- Designed and built a versatile projectile system spanning physics, prediction and designer-facing authoring tools
- Implemented a bespoke, precise aim assist system for players and NPCs, with flexible authoring and visual debugging tools
- Developed data-driven VFX/SFX systems to support dynamic, contextual runtime effects
- Modified and extended UE4 engine behaviour to support client-authoritative gameplay
- Added features to the in-house scripting language to empower designers and improve workflows
- Helped define pipelines and core systems for studio's first game title

2018-2021 | Software Engineer | Funomena

"Wattam" - Released in December 2019 on PS4 and PC
Unity | C#

- Developed gameplay features, custom physics, tools, camera systems and shaders
- Automated and maintained cross-platform build pipelines

Other projects:

- Designed and implemented gameplay prototypes for PC, console, Oculus VR devices and experimental hardwares
- Built and pitched a social multiplayer VR prototype solo, which later received funding and entered production

2017 | Engineering Intern | Yacht Club Games

"Shovel Knight: King of Cards" and "Shovel Knight: Showdown" - both released in 2019
C++ | Custom game engine

- Implemented gameplay and engine features
- Created a playable character in "Shovel Knight: Showdown"

Education

2016-2018 | University of Southern California

M.S. Computer Science (Game Development)

- Lead engineer and lead designer on thesis project "Friendshrimp" (Unity/ C#, 25-person team)

2014-2015 | University of Bristol

M.Sc. Computer Science (Distinction)

- Thesis: Gamification & Health Services using custom physical playful interfaces

2010-2014 | University of St Andrews

B.Sc. Hons, Chemistry with Medicinal Chemistry (First Class)

- T.S. Murray Prize for Best Graduating Chemistry Student