Matthew Lockhart

Game Developer · Gameplay & Systems Design

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Software engineer and independent game developer focused on gameplay mechanics, systems design and 3D environments. Bringing professional engineering experience to player-focused prototyping, playtesting and iteration in Unity.

Experience

BAE Systems Air — Brough, England
Software Engineer — Aug 2026 – Present
- Developing Ada software and integrating engineering toolsets with internal applications for an early-stage aerospace proof of concept.

Technologies: *Ada, GitLab, Linux*

BAE Systems Digital Intelligence — London, England
Graduate Software Engineer — Aug 2025 – Aug 2026
- Developed Java/Spring Boot services in a six-engineer team, adapting backend designs as requirements and priorities evolved.
- Delivered a last minute substantial five-day redesign of APIs, schemas and service logic ahead of stakeholder demonstrations.
- Co-demonstrated working software to senior BAE leadership and UK MOD representatives, answering technical questions.

Technologies: *Java, Spring Boot, RabbitMQ, GitLab CI/CD*

BAE Systems Air — Brough, England
Graduate Systems Engineer — Jan 2025 – Aug 2025
- Translated requirements into system models and guided colleagues in Cameo, including sequence and use-case diagrams.

Technologies: *Cameo, MBSE, Requirements Engineering*

Selected Game Projects

Black Tide: Forsaken *Unity, C#, Gameplay Systems, Level Design*
- Co-developing a historical open-world action RPG in a two-person team, leading gameplay systems and 3D level/environment design.
- Designed reusable, component-driven mechanics for player movement, interactions, inventories, quests and environmental events, allowing new content to build on shared systems.
- Created large terrain, settlement and interior environments with dynamic day/night lighting, weather and tides to support exploration and atmosphere.
- Balanced environmental detail and runtime performance using LOD, occlusion culling and GPU instancing.

So You Think You Can Talk? *Unity, C#, Game Design, UI/UX, Steam*
- Developed a social word-guessing party game from concept to a playable pre-release Steam build in approximately six weeks, directing design, development and testing.
- Designed the core gameplay loop, word selection, scoring and round structure, iterating on pacing, readability and player feedback.
- Refined menus, controls, settings, in-game communication and post-match presentation through hands-on testing and repeated UI/UX iteration.
- Prepared the Steam store page and Windows build, coordinating feature integration, testing and pre-release polish.

Ossuary (early prototype) *Unity, C#, Systems Design, First-Person Interaction*
- Designing a first-person incremental game centred on tactile excavation, resource sorting, transport and physical monument construction.
- Specified interconnected mechanics for finite resources, tool use, shared storage, procedural construction and early worker-assisted sorting.
- Shaped interaction feedback and an environmental storytelling approach in which the player's actions and the evolving world drive the experience.

Education

University of Hull — Hull, England
BSc (Hons) Computer Science, *First-Class Honours* — Sep 2021 – Jul 2024

Technical Skills

Game Dev:	Unity 6 / URP, gameplay & systems design, level design, prototyping, UI/UX iteration
Techniques:	Component-based systems, 3D environment creation, LOD, occlusion culling, GPU instancing
Languages:	C#, Java, C++, Python, Ada, Rust
Tools:	Git, GitLab, Jira, Linux, Blender, Cameo / MBSE

Full UK driving licence