

Games developer specialising in Unity (C#) gameplay systems: state-machine-driven enemy AI, multiplayer netcode, and simulations that stay fast under load. First Class Honours graduate in Games Development from Teesside University, winner of Best Games Programming and Development Artefact at ExpoTees 2026, and currently a Gameplay Programmer at Shiverbug Studios. Eight playable projects, with source on GitHub and breakdowns at [oliverneal.dev](https://oliverneal.dev).

## EXPERIENCE

**Gameplay Programmer** Shiverbug Studios Jul – Sep 2026

- Ten-week internship on Out of Water, an original-IP 3D split-screen platformer collectathon for two players, working in engine daily.
- Building gameplay systems on finite and hierarchical state machines, refining core mechanics, and authoring Shader Graph shaders and VFX.
- Implementing a decoupled FMOD audio layer that the audio team plugs into directly.

*Unity 6 · C# · FSM/HSM · Shader Graph · VFX · FMOD*

## TECHNICAL SKILLS

**Languages & Engines** C#, Unity (2D/3D), Shader Graph, Unreal Engine 5, Python

**Gameplay & AI** Gameplay programming, systems design, finite & hierarchical state machines, AI navigation (NavMesh), Unity UI

**Performance** Optimisation, time-sliced & multi-rate simulation, runtime NavMesh baking, profiling large entity counts

**Multiplayer & Services** Netcode for GameObjects, Unity Authentication, Relay, Lobbies, Cloud Save

**Tools & Workflow** Git, Visual Studio, JetBrains Rider, Figma, Trello, technical documentation

## HIGHLIGHTED PROJECTS

**Cyber Station** Unity 3D · C# · AI Navigation · Simulation Apr 2026

- Neon station management game where passenger AI, train scheduling, staff, economy, and a six-factor rating system run together in a single simulation.
- Final-year project: scored 90 and won Best Games Programming and Development Artefact at ExpoTees 2026.

**Tile Turfer** Unity 2D · C# · Procedural Generation · Enemy AI Jan 2026

- Turf-war arena shooter where one territory percentage drives difficulty, fire rate, and enemy attacks, across procedurally generated caves with runtime 2D navigation.

**Minimalists** Unity 3D · C# · Enemy AI · RTS Aug 2025

- Minimalist 3D RTS with advanced enemy AI: capture structures and commit forces by percentage in modes from duels to four-way free-for-alls.

**Unicellular** Unity · C# · FSM · Optimisation Feb 2025

- Idle simulation stress-tested to 10,000 concurrent entities, kept smooth with finite state machines, a multi-rate tick, and time-sliced proximity AI.

**3D Netcode Tank Game** Unity 3D · C# · Netcode · Multiplayer Jan 2025

- Server-authoritative multiplayer tank shooter with Relay-hosted sessions, cloud authentication, and a 64-ray hitscan resolved on the server.

**Pinnable** Unity 2D · C# · Arcade · Physics Mar 2024

- 2D arcade score-attack game with a weighted spawn director that ramps difficulty dynamically the better you play.

## TEAM PROJECTS

**Space Bar Simulator** Unreal Engine 5 · Blueprints · Team of 10 Jan 2026

- Retro-futurist bar simulator built for Beta Arcade, Teesside's studio-simulation module. Owned the player controller, interface-driven interaction architecture, and camera-blended station systems.

**Candy Corporate** Small team · Pixel Art Apr 2024

- Pixel-art candy company game; led level design, tileset creation, and pixel-art integration.

## EDUCATION

**BSc (Hons) Games Development** Teesside University — First Class Honours (80% overall); final-year project scored 90 Jul 2026

**FdSc Games Technologies** Newcastle College University Centre — 2:1 Jul 2025