## **Matt Ware**

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GitHub 😱

Skilled and enthusiastic games programmer on the second year of a BSc (Hons) in Games Technology. With a strong foundation in C++ and C#, and experience in commercial engines such as Unreal, Unity, and Godot, Proven across many academic and personal game projects, I can deliver high-quality results across many aspects of games programming. I am seeking an industry placement to develop my technical skills further and contribute to interesting game projects.

Languages/APIs: C++/C | C# | Java | Python | OpenGL | SDL/GLFW | Steamworks | HTML/CSS/JS Tools/Techs: Unreal Engine | Unity | Godot | JetBrains Suite | VS 2022/Code | Git/GitHub/CI

#### **Education**

#### **BSc (Hons) Computer Games Technology (TIGA Accredited)**

University of Portsmouth (September 2023 - July 2027)

- · Achieved a first-class across my first year, demonstrating a strong understanding of the topics covered.
- Developed over 5 projects in one year with Unreal and Godot, both solo and as part of a group.
- Developed a high level of competency in C++ and C# by creating multiple projects in Unreal Engine, Unity, and Godot
- Learned low-level techniques, such as memory management with pointers, through C++ projects in Unreal Engine and with PS5 Dev Kits and SDKs.
- Submitted all coursework to a high standard and on time, demonstrating strong organizational skills and attention to detail.
- Researched academic sources and produced highly marked reports.
- · Solidified knowledge of the fundamentals of game art, and learned the basics of toolsets such as 3DS Max, for better communication with artists.

#### **UAL Level 3 Extended Diploma in Games Development**

Fareham College (September 2021 - July 2023)

- Achieved the maximum grade for the course, a triple distinction.
- Furthered knowledge of C++ and programming in general, including an understanding of paradigms such as object-oriented, event-driven, and data-
- Experimented with advanced topics such as procedural generation, mesh generation, binary serialisation, and custom scripting languages.
- Worked on 4 game projects, both solo and in teams, in GameMaker and Unreal Engine.
- Learned the basics of various art packages, such as Blender and Substance Painter.

# **Projects & Experience**

#### Pirate Survivors 2024 Unreal C++ Group





and upgrades with properties and blueprint code.

can upgrade any property on a player or weapon.

• Implemented multiple mulitplayer-aware AI behaviours.



• Worked with designers to create systems to rapidly iterate on weapon types

• Used Unreal Engine's reflection system to create dynamic upgrades that

• Created a custom system to replicate thousands of XP objects smoothly.

• Used Unreal Engine and C++ to create a multiplayer survivors-like.



#### **PAPI** 2024 C++ Group

- Helped write a multiplayer 2D game in C++ from the ground up.
- Wrote a renderer in OpenGL, featuring batched rendering, instanced tilemap rendering, and MSDF text rendering.
- Implemented multiplayer features with Steamworks, including encoding and decoding binary messages, and creating a basic C++ reflection system.
- Held weekly stand-ups to track progress with teammates, help resolve roadblocks, and assign tasks.

#### Echoes of Serenity 2024 Game Jam C#

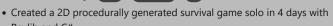
Raylib and C#.





• Created a lobbying interface that leveraged the Steamworks API.





- Used a data-driven approach to rapidly add new tiles and items.
- Created an easy-to-use UI system on top of Raylib.
- Shared ideas with and tested the games of fellow developers during the week-long jam.

### Chemicode 2023 Unreal C++







- Created a custom block-based visual scripting UI and virtual machine in C+ + to facilitate a unique gameplay mechanic for a chemistry puzzler.
- Created data models to easily implement interactions between different
- Stuck to deadlines and hosted playtests to gather information on what should be changed.

#### Ecoscape 2023 Unreal C++ Group







- Used Unreal Engine's procedural mesh API to create dynamic terrain, fences, and other visualisations.
- Used custom data assets to easily create new items, including editor tools to automatically generate icons, significantly increasing productivity.
- Integrated external libraries (FastNoiseLite) into an Unreal C++ project.
- Created many AI behaviours and animation graphs for different animals.

### **Additional Projects**

- Quake loader: Loads Quake 1 PAKs, BSPs, and some entities into Unreal Engine. Procedurally generates meshes from BSP data.
- Minecraft mods: Created multiple Minecraft mods in Java and published for thousands of downloads.
- Game jam games: Created multiple more games during game jams, both solo and in teams, in Unreal and Unity.

### **Hobbies & Interests**

- Playing games there's no better way to find inspiration for mechanics and implementations.
- Film & Photography film is a massive inspiration for me, and I specifically enjoy cinematography. I'd like to get further into photography and videography.
- Long walks Great for relaxing and turning over problems in my head.
- Experimenting with new and developing technology for example, XR. I'd like to make a VR game in my spare time.