James Day

Games Programmer

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Personal Statement

A talented game programmer with strong skills in C++, Unity, Unreal Engine, DirectX, and OpenGL. Currently pursuing a Computer Games Programming degree at the University of Staffordshire, seeking a placement to contribute to engaging game projects while honing my skills in game development and programming. Quick learner, eager to embrace emerging technologies.

Key Skills

Programming Languages: C++, C#, Python, Lua

Game Engines: Unity, Unreal Engine

Frameworks: MonoGame, SDL, OpenGL, DirectX

Version Control: Git, Github

Web Technologies: HTML, CSS, JavaScript

Soft Skills: Problem-solving, Teamwork

Hobbies & Interests

Piano: I have played piano since the age of 7 and have reached grade 6.

Composition: I have composed various tracks which I have released on SoundCloud, one of which got over 20 thousand plays.

UI/UX Design: I enjoy designing both website and game UI/UX. This can be seen in quite a few of my projects primarily *Astro Forge* and *Tanks*.

Education

University of Staffordshire, *(2023 – Present)*
Computer Games Programming BSc (Hons). Achieved a first in year 1.

Battle Abbey School, (2018 – 2023)
9 GCSEs and 3 A levels comprising of:
A in Computer Science and Mathematics and a C in Economics.

Projects

Astro Forge *(Unity, 2023)*

- A spaceship building game with procedural round-based combat.
- Designed a modular ship construction system with an intuitive UI and implemented procedurally generated rounds to enhance replayability.

Tanks *(C#, 2024)*

- Networked multiplayer tank battle game with matchmaking for multiple game modes.
- Implemented support for multiple active lobbies, a spectating system, and server-client communication with prediction to allow seamless multiplayer gameplay.

DirectX Rendering Framework *(DirectX 11, 2024)*

- Incorporates advanced graphics techniques such as Cook Torrance BRDF lighting for realistic material rendering, and directional, point, and spot light types.
- Implemented terrain generation from height maps with wind affected grass using instanced rendering.

OpenGL Rendering Framework *(OpenGL, 2023)*

- Implemented object loading with OBJ and MTL file parsing.
- Scene system which can load various scenes from an XML based format with support for hierarchical layouts.

Tank Infiltration *(Unreal Engine, 2023)*

- Top-down PvE tank combat game with various AI enemies and weapons.

References available on request