LUKE TAYLOR

GAMES PROGRAMMER

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Personal Statement

A Games Programmer in my final year of study at Staffordshire University. I'm a passionate and skillful programmer with advanced knowledge of C++, C#, Unity, Unreal Engine, MonoGame, OpenGL and more. I always aim to build clean, bug free and scalable code bases by using best practices and design patterns as well as keeping up to date on new technologies and developments in games. I always bring an eager to learn attitude to further my skills as a programmer by working well with others.

Projects

Sparrow Engine (Collaborative, C++, OpenGL, 2026)

- Team effort to create a game engine capable of deploying a game with physics, audio and input
- Built infrastructure including memory pooling and time handling across the engine
- Created a factory system using ImGUI to build UI windows and features easily in the codebase
- Built tools for editor such as profiling and asset browser windows

Procedural Dungeon Generator (Solo, C#, Unity, 2025)

- Designed and created an agent based PCG algorithm capable of generating random, error-free layouts with given parameters
- Prototyped an interior generation system that uses a restriction based approach to fill rooms
- Integrated with Unity Tile-Maps feature for easy customization in editor using exposed parameters

Space Chunks (Solo, C#, MonoGame, Networking, 2025)

- Developed a multiplayer version of the game Asteroids
- Used Monogame to build a game loop and logic
- Used both TCP and UDP to send encrypted data
- Multithreading techniques to ensure synchronization
- Utilizes client-server architecture to maintain game state

Evercade Console Game (Solo, C++, SDL, Evercade, 2024)

- Wave-based 2D fighter game built with SDL and C++ for the Evercade EXP console
- Used Docker to port to custom ARM Linux system
- Implemented platform-specific controls
- Multiple mechanics and abilities for player and enemies
- Includes full game loop, animations, collision detection, and a progressive wave system

Work History

Warehouse Operative, DX
Shrewsbury, July 2022 - July 2023

In-Store Worker, Papa Johns
Shrewsbury, October 2021 - July 2022

Skills

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

Game Engines
Unity, Unreal Engine, Godot

Frameworks
MonoGame, OpenGL, SDL

Version Control
Git & Github

Other
Procedural Generation, Networking, Low Level Optimization, Docker, Tools Programming, HTML & CSS

Education

University of Staffordshire *(2023 - Current)*
BSc Hons Computer Games Programming

Shrewsbury College *(2021 - 2023)*
DDD - BTEC Level 3 Information Technology

Shrewsbury Academy *(2016 - 2021)*
9 GCSEs Including Maths, English and Science

Interests

Procedural Content Generation
I have a strong interest in PCG and developing tools and applications that benefit both game design and mechanics.

Emerging Technologies
Emerging tech in the game industry such as VR, AR and advanced AI has always sparked my interest, influencing some of my recent projects.

Game Mechanics
I have a passion for interesting game mechanics and features, I find myself always thinking of new ideas for future projects and taking inspiration from recently released games.

Chess
I've always enjoyed the game of chess, playing against family and friends, even creating my own AI chess bot as a personal project.