

Christian Lewis-Monto

Programmer

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👤 PROFILE

Games Programming student with one year of experience as a Tools Programmer working on a proprietary AAA game engine. Experienced in developing editor tools using C# and WPF, supporting designer workflows, and investigating performance bottlenecks through profiling and analysis.

Highly proficient in C++, with experience in areas such as memory management and entity-component-system (ECS) architecture. Previously studied Mathematics at university, strengthening my analytical and problem-solving skills. Passionate about engine, systems, and tools development, particularly building the underlying technology that supports game development pipelines.

👜 PROFESSIONAL EXPERIENCE

d3t, Tools Programming Intern

July 2024 – July 2025
Warrington

Worked as a Tools Programmer on a proprietary engine used for AAA game development, contributing to editor and workflow tooling used by internal teams.

- Developed editor tools in **C#** and **WPF** using the **MVVM** architecture to improve maintainability, scalability, and testability, with a focus on enhancing the **viewport** and **level-editor**.
- Implemented features such as **component icons in the viewport**, **object transformation tools**, and **cloning workflows** to improve usability for designers.
- Managed and prioritised development work through **Azure DevOps**, implementing new features and resolving engine bugs through assigned tickets and tasks.
- Performed **code reviews**, wrote **technical documentation**, and produced **work proposal documents** for new tooling features.
- Presented completed milestone work and feature updates to **clients and internal users**.
- Conducted **performance investigations** by capturing and analysing profiling data to identify bottlenecks and key hotspots, particularly in **level loading systems**, helping guide optimisation efforts.

Software Academy, Python Course Lead

September 2025 – Present
Remote

Whilst continuing my final year of University I am working as a python course leader. My role includes:

- Lead and teach **game programming** and **game design** to students aged 9–18, covering **Python**, **Unreal Engine**, and **C++**.
- Develop and deliver course curriculum tailored to various skill levels, ensuring age-appropriate content and progressive learning.
- Conduct **quality assurance** reviews on other tutors' lessons to maintain high teaching standards and ensure consistency across courses.
- Provide **training** and mentorship for new tutors, helping them develop effective teaching strategies and understanding of course materials.

- Offer **technical support** to students and parents, troubleshooting issues related to course setup and providing guidance on technical setups.

Care Connect Bury Ltd, Administrator and Data Analyst

April 2022 – July 2024
Bury, Lancashire

The first was **HR Administration**, where I organised and conducted interviews, maintained employee records and files, added new employees to internal systems, and coordinated training and induction processes.

The second focused on **data analysis of the company's delivered work**. This involved analysing operational data to identify outliers and potential issues, reviewing employee performance data, and generating spreadsheets and reports that were submitted to the local council.

To improve efficiency and productivity, I utilised advanced Excel formulas and developed automation tools in **C++ and Python** to automatically sort, calculate, and generate required spreadsheets.

Photomath, Freelancer Math Expert

July 2020 – April 2022
Remote

Worked as a freelancer math expert solving math tasks that range from elementary math problems all the way up to more advanced topics including multivariable calculus. Additionally, I reviewed other math experts' tasks ensuring that the solutions typed up were mathematically correct, follow the correct rules and were broken down into in-depth steps.

EDUCATION

BSc (Hons) Games Programming, University of Greater Manchester

September 2022 – Present

Currently studying games programming. I have experience in multiple languages as well as proprietary and commercial engines. Main languages being C++ and C#. And engines - Unreal Engine and Unity. Overall average of 97% for programming modules.

MMath (Hons), University of Manchester

September 2020 – June 2021

Studied Master of Mathematics (Hons). Achieved 87.6% for my first year of the course. The modules I completed included multi-variable calculus, linear algebra, introduction to pure mathematics, applied mathematics (physics), probability and statistics.

A level (or equivalent)

January 2007 – December 2019

In my schooling career I obtained various achievements such as getting the top 1% of marks for the country for two subjects. Achieving 96% for mathematics and 90% for advanced mathematics. Obtained 7/8 A's for my final marks.

SKILLS

Programming

C++, C#, GLSL, Python

P4V

Unity and Unreal Engine

Mathematics

Microsoft Office

ACCOMPLISHMENTS

- Top 1% of marks in country for Computer Application Technology (2019)
- Top 1% of marks in country for Mathematics benchmark test (2018)
- Prefect and later Head Prefect in School
- Attended Rotary Leadership Award (2018)
- Represented region in Chess Championships (2013 - 2019)
- Provincial Arbiter in Chess [Similar to a "judge" in chess]

PERSONAL PROJECT LEARNING OUTCOMES

Scarlet Game Engine (OpenGL and Vulkan)

I am creating my own game engine following a custom Entity Component System and OpenGL for the graphics (working on Vulkan branch as well). The engine is split into multiple projects for the Game, Editor and Engine, as well as multiple test projects to run unit tests on things such as the implemented math libraries (including Quaternions). The solution has a custom build process which involves automatically generating reflection for components which is used to auto populate properties panel as well as serialization and deserialization.

Call of Duty Zombies Recreation

I implemented my own game engine following an Entity System. Using the engine I recreated a top down shooter version of COD zombies. I used various techniques including object orient programming, polymorphism as well as creating my own systems such as rendering manager and own collision system. The purpose was to recreate the game whilst implementing techniques that could be easily adjusted. I implemented loading in information from files to show how values could easily be adjusted by anyone.

3D Renderer

Used SDL2 to create my own 3D renderer. I coded a simple project that loads a model from obj file and renders it to the screen. I added a slight bit of lighting by using tangent vectors and dot product with a light source as well as some simple culling.

REFERENCES

References available on request