

Liam Oliver Stewart

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2nd Year Game Programming Student at the University of Staffordshire

Technical Skills

- Languages: C++, Python, C#, HTML/CSS
- Libraries: OpenGL, GLFW, SDL, SFML, PyGame, JSON
- Game Engines: Unity, Unreal Engine 5
- Tools: Git, Trello, Visual Studio

Projects

RTS Game Engine – Emperors Armory Studio ([project page](#)) December 2023 – September 2024

- Using C++ built a prototype game engine for real time strategy projects designed for large sets of agents and interactions
- Built the agent manager, controlling all entities placed into the world using polymorphism to allow each agent to function uniquely
- Worked closely on the terrain system, creating tools to generate a JSON map file using python then loading that into the game engine using nlohmanns JSON library and rendering terrain at the correct height accordingly
- Led a sub team of 3 programmers using discord to communicate progress and deadlines and to help any developers struggling on the team.

Voxel Renderer – Individual ([project page](#))

September 2023 – October 2024

- Built a “Minecraft like” voxel renderer using C++ and OpenGL with infinite chunk generation using perlin noise
- Around May had to undergo a massive rewrite, starting from a new project. The first edition was my first time using OpenGL and had massive performance issues
- The Second Edition was much further polished and runs smoothly at 60 frames per second with insane render distances
- Implemented common rendering practises for voxels, however, could be optimised further so will likely come back to the project later

Education

BSc (Hons) Computer Games Programming, University of Staffordshire – Achieved first class in Graphics Programming, Bespoke Platform Development and the Unity modules.

Employment

Kitchen Porter, Pi’s Pizza, Poole

May 2024 – September 2024

- Teamwork, working closely with the chefs in the kitchen, was responsible for cleaning dishes, wiping down sides and sweeping throughout the shift and shutting down once the kitchen was closed
- Communicating with team members through service to direct them when additional help was needed on the dishes
- Followed all policies and procedures, especially the food and health safety

Interests – playing pool friends and family, but also love playing factory games due to the intense constant puzzle solving

Reference – Cerys – Café Manager at Falmer Palmers

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