

Finlay Laidlaw

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My interest in programming and game development began early, first with GameMaker and then with Python and C++ in high school in Edinburgh. This culminated in me entering the Computer Games Technology course at Abertay. I have made mods, participated in game jams, the Grads in Games Rising Star Programming challenge, and Abertay's DARE Academy. From 2024 to 25 I worked as a Placement Programmer at Sumo Digital, and from 2025 to 26 I went back to university to finish my degree while working on Heldritch Rush in the background. Some games that inspire me today are: Outer Wilds, Deltarune, Tunic, and the Half-Life series.

Skills

C++	Unreal Engine 5	Collaboration
Git / Perforce	OpenGL	DirectX 11
Gameplay Programming	Network Programming	UI Programming

Work

Organisation	Title	Date
Sumo Digital Ltd.	Placement Programmer (1 year contract)	Aug 2024 – July 2025
At Sumo I worked with Unreal Engine 5; on a party game called ProjectD5 and an unannounced game. (Steam: https://store.steampowered.com/app/3734070) <i>Technologies:</i> Unreal Engine 5, C++, Blueprints, Perforce, Jira, Swarm, UMG, Rewind Debugger, Enhanced Input, Mover, ImGui, Wwise (Unreal integration) <i>Experiences:</i> • On ProjectD5, I owned one of the game modes - implementing changes and bugfixes. • On the unannounced project, I implemented prototypes for player abilities and owned a system for locking/unlocking player capabilities. • Working in a large team (~70) with task management and code review. • Working on UI logic, debug tools, game mechanics, camera, player movement, and controls. • Joining existing projects and quickly getting up to speed with development practices and tools. • Implementing features from both design documents and informal requests. • Documenting the systems and tools I create. • Implementing game rules (e.g. scores, rounds, team assignment) in a networked multiplayer context.		

Projects

Organisation	Title	Date
Sloth Doctor Games	Heldritch Rush	July 2025 – Aug 2026
Heldritch Rush is a top-down on-rails shooter. While working on Heldritch Rush, I continued to develop my Unreal Engine 5 and C++ skills, while learning to manage other programmers. (Steam: https://store.steampowered.com/app/5035910/) <i>Technologies:</i> Unreal Engine 5, C++, Blueprints, Git, Trello, Common UI, UMG, Enhanced Input, State Trees, AI Navigation, Animation Blueprints, Materials, Environment Query System <i>Experiences:</i> • Acted as “lead” programmer managing two other programmers. • Created an extensible and easy to use spline-based movement system with support for events at each spline point (e.g. delay, spawn enemy, change camera angle, etc). • Created a visibility system that allows only the current room to be shown from a top-down perspective, with everything else rendered as black. • Created a weapons system that allows weapons to be scripted in Blueprints with high level functions (e.g.		

do hit-scan, spawn projectile, do knockback, do damage). - Created a system for arranging melee and ranged enemies around the player in valid locations so they do not bunch up and get a clear shot. - Implement Common UI with support for KBM and gamepad with input rebinding. - Extended the Unreal Engine UI to add a menu for changing the character weapon selection before playing-in-editor. - Used Data Tables to make gameplay configuration parameters easily accessible.		
Abertay University	Embedding Games in QR Codes	Sept 2025 – May 2026
For my honours project (my final year project), I wanted to do something different. I decided to explore the possibilities of using QR codes as a delivery mechanism for games. Obviously, a QR code can easily store a link to any online game, what my project explores is putting the <i>game data</i> in the QR code directly, as if the QR code is a storage device. (Project: https://qr.unspear.com/) This project was supervised by Dr Adrei Boiko (https://www.abertay.ac.uk/staff-search/dr-andrei-boiko/). <i>Technologies:</i> TypeScript (JavaScript), HTML, CSS, WebAssembly, C++, Python, Lua, Webpack, Text Compression <i>Experiences:</i> - Learning web development and programming a mobile first game engine and editor in TypeScript. - Working on a longer-term mostly self-directed solo project. - Breaking down the project into sub-tasks and creating a timeline against deadlines. - Creating comprehensive documentation for the application. - Researching methods of compression for code and level data. - Porting an existing C++ text compressor to WebAssembly. - Integrating Lua as an embedded scripting language. - Implementing a “chunking” system for tilemap data to reduce size.		
Abertay University	Braise Satan	Nov 2023 - July 2024
<i>Braise Satan</i> is a cooking game set in hell. Originally created as the 3 rd year group project, it was developed further in the DARE program. I was one of two programmers. It was an excellent opportunity – the first time I had worked in a team for an extended period. (Steam: https://store.steampowered.com/app/3295990/) <i>Technologies:</i> Unreal Engine 5, C++, Blueprints, Git, Jira, Trello, UMG, Enhanced Input, AI Navigation, Behaviour Trees, Animation Blueprints, Materials <i>Experiences:</i> - Collaborating with game designers, producers, and artists to implement features. - Fixing bugs and iterating features based on playtesting, feedback and design changes. - Using Git version control and task tracking through Jira. - Programming recipes, scoring, item interaction, cooking mechanics, and a round-based gameplay loop.		

Education

Organisation	Title	Date
Abertay University	BSc (Hons) Computer Games Technology	Sept 2021 – May 2026
I took a one-year suspension of studies between 3 rd and 4 th year to do my placement at Sumo Digital. In 2025 I returned and finished my degree with first class honours.		

Awards

Organisation	Title	Date
Abertay University	David Potter Memorial Prize	November 2022
“[...] is awarded to the student in year one of [my course] who achieves a high level of performance generally and is deemed to be the best student overall”		
Grads In Games	Rising Star Programming Finalist 2024	March 2024
Grads In Games Rising Star is a competition for “Undergraduate students graduating in 2025 or later, or college/school level students.”		