

CLINT GALVEZ

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Gameplay Programmer with 2+ years of professional experience in Unreal Engine (C++ & Blueprints), specializing in character systems, AI-driven NPC behavior, and gameplay architecture. Background spans production gameplay code, custom engine tooling, and applied ML for game AI.

TECHNICAL SKILLS

Languages | C/C++/C# | GDScript | Python | Java | JavaScript | HTML | CSS | VB | Bash |

Tools | Unreal Engine (C++/Blueprints) | Unity | Godot | Git/SVN | Visual Studio | Linux | Jenkins |
| Atlassian | Azure | Jira | Docker |

Concepts | Data Structures & Algorithms | OOP | Multi-threading | Machine Learning (RL/IL) |
| Computer Vision | Pipelines | Agile | Networks |

WORK EXPERIENCE

05/2024 – Present **Unreal Engine Developer | Carleton Immersive Media Studio** Ottawa, Canada

- | Redesigned and optimized core gameplay mechanics (movement, interaction systems, game mode logic), profiling and refactoring Blueprint and C++ code paths to achieve a 30% runtime performance increase.
- | Implemented new game mode functionality and player interaction systems based on iterative user testing, refining UX and gameplay feel across multiple build cycles.
- | Developed an Unreal Engine plugin enabling real-time PostgreSQL access at runtime, extending engine capabilities for data-driven gameplay and simulation systems.
- | Pioneered Pixel Streaming on Linux, enabling scalable, low-latency browser-based access to containerized Unreal Engine builds.
- | Automated deployment and scaling of Unreal Engine applications via containerization, improving build turnaround and operational uptime.
- | Worked within Agile sprints, iterating rapidly on gameplay features and incorporating playtest feedback each cycle.

05/2023 – 12/2023 **Software Automation Engineer | Lumentum Operations LLC** Nepean, Canada

- | Automated file dependency management and built robust CI/CD pipelines, streamlining development and deployment workflows while eliminating manual file updates across multiple projects.
- | Designed and developed virtual devices that remove hardware dependencies for seamless code and unit testing.
- | Created error reporting and graphical user interface tools, significantly boosting productivity by 80% in manufacturing data workflows.
- | Collaborated closely with cross-functional teams to troubleshoot software issues and deliver high-quality products.
- | Implemented comprehensive performance testing procedures while maintaining detailed documentation for automated testing systems.

EDUCATION

Honours Bachelor of Computer Science | Computer Game Development Stream Carleton University | Ottawa, ON

- | Graduated with High Distinction, achieving a 3.9 GPA
- | Co-operative Education

PROJECTS

Dynamic Split-Screen Viewing System (*Unreal Engine, C++/Blueprints*)

Work In Progress

- | Designed a component-based multi-perspective camera system in C++ and Blueprints, supporting up to 7 simultaneous player views with runtime switching between first-person, third-person, and top-down RTS perspectives.
- | Built custom shader-based transition effects for seamless screen division, synced to camera-state changes.
- | Architected the system for extensibility, exposing camera and perspective logic as reusable components for future gameplay mechanics.

Honours Project – Human-Like Behaviour (*Unreal Engine, C++/Blueprints*)

Available on GitHub

- | Architected a stealth-AI gameplay system in Unreal Engine 5, implementing full character locomotion (walking, sprinting, crouching, traversal) and a hybrid AI decision-making architecture combining behaviour trees with reinforcement/imitation-learned neural policies.
- | Built a custom observation/reward system balancing pursuit, stealth, and environmental awareness, enabling NPCs to generalize beyond scripted behaviour trees alone.
- | Integrated motion matching for fluid, context-aware character animation, tightly coupling animation state with AI decision output.
- | Collected and applied real playtester movement data to imitation learning, iteratively tuning agent behaviour to match human strategy patterns.

Cranial Electrotherapy Stimulation (CES) Device Simulation (*Qt Creator, C++*)

Available on GitHub

- | Implemented core C++ features for a device simulation in a team of four, ensuring all deliverables met requirements and deadlines through effective collaboration and testing.
- | Developed documentation, UML diagrams, and test scripts, which improved project maintainability and earned positive feedback from instructors.

Simulated Elevator System (*Qt Creator, C++*)

Available on GitHub

- | Designed and implemented an object-oriented elevator control system to efficiently manage multiple elevator requests and state transitions.
- | Applied the Strategy pattern and real-time status updates to optimize elevator assignment, improving responsiveness and scalability.

Multi-Threaded Probability Simulation (*Command Line, C*)

Available on GitHub

- | Built a multi-threaded probability simulator in C to efficiently model stochastic processes and concurrency scenarios.
- | Utilized thread synchronization and parallel computation to increase simulation throughput and accuracy.

Library Server (*Command Line, C*)

Available on GitHub

- | Engineered a C server application supporting multiple library clients with robust request processing and resource management.
- | Implemented structured protocols for lending, returning, and tracking books, enhancing transaction integrity and user experience.

Dark Souls Clone (*Unity, C#*)

Available on GitHub

- | Built modular systems for movement, combat, and weapon management.
 - | Implemented controller and keyboard input mappings for various systems.
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