

CLINT GALVEZ

Mississauga, ON

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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
- | Developed an Unreal Engine plugin that enables real-time PostgreSQL database access during runtime, significantly extending engine capabilities for dynamic data-driven applications.
 - | Pioneered the implementation of Pixel Streaming on Linux, facilitating scalable, low-latency, browser-based access to containerized Unreal Engine instances.
 - | Automated the deployment and scaling of Unreal Engine applications using containers, which improved resource utilization and operational availability.
 - | Revamped and optimized core game mechanics alongside automated setup processes, achieving a 30% performance increase and enhancing user experience.
 - | Conducted user interface and user experience improvements based on testing feedback, incorporating new application mode functionalities.
 - | Independently researched and documented technical topics for studio use, enhancing internal knowledge resources.
 - | Actively engaged in Agile sprints and rapid iteration cycles to ensure timely project deliveries.
- 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]	<i>Work In Progress</i>
<ul style="list-style-type: none">Designed and implemented a multi-perspective camera system inspired by commercial split-screen frameworks, supporting up to 7 simultaneous player views.Developed shader-based effects for seamless screen division and transition.Built dynamic logic in C++ and Blueprints to switch between first-person, third-person, and RTS-style top-down perspectives, adapting automatically to the active split-screen configuration.Engineered the system as part of a long-term personal game development project, with emphasis on scalability and flexibility for future gameplay mechanics.	
Honours Project – Human-Like Behaviour (Unreal Engine) [C++/Blueprints]	<i>Available on GitHub</i>
<ul style="list-style-type: none">Developed a 3D stealth game environment in Unreal Engine 5, implementing advanced movement mechanics (walking, sprinting, jumping, crouching, traversal) and dynamic level design to support AI training and evaluation.Designed and trained AI agents using Unreal Engine's Learning Agents plugin, leveraging both reinforcement and imitation learning to create non-player characters that mimic human-like stealth and pursuit behaviours.Implemented a robust observation and reward system for AI agents, balancing objectives such as target pursuit, stealth, and environmental awareness to foster realistic, unpredictable in-game behaviour.Integrated motion matching technology to achieve fluid, lifelike character animations, enhancing both visual realism and the believability of AI-controlled agents.Engineered a hybrid AI architecture combining neural networks with behaviour trees, enabling adaptive, context-aware decision-making and seamless switching between machine-learned and rule-based behaviours.Conducted iterative testing and optimization of AI training parameters, including reward shaping, episode management, and environment complexity, to improve agent performance and generalization.Collaborated with playtesters to collect human gameplay data for imitation learning, refining AI behaviour to closely match real player strategies and movement patterns.Documented technical findings and contributed insights on scalable approaches for developing immersive, human-like AI in modern games.	
Cranial Electrotherapy Stimulation (CES) Device Simulation (Qt Creator) [C++]	<i>Available on GitHub</i>
<ul style="list-style-type: none">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++]	<i>Available on GitHub</i>
<ul style="list-style-type: none">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.	
Dark Souls Clone (Unity) [C#]	<i>Available on GitHub</i>
<ul style="list-style-type: none">Built modular systems for movement, combat, and weapon management.Implemented controller and keyboard input mappings for various systems.	