

# EMERSON MCCABE

Game Developer

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## PROFESSIONAL SUMMARY

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Highly motivated game developer with a strong foundation in programming, 3D graphics, and team leadership. Recognized for proactive problem-solving and sought-after leadership skills, with a passion for creating impactful experiences in the video game industry. Eager to contribute to innovative projects while improving and expanding technical expertise.

## SKILLS

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|--|-----------------------------------|--------------------------------|
| • C++                                      | • Unreal Engine                   | • Unity                        |
| • Rendering APIs (OpenGL, Vulkan, DirectX) | • Object-Oriented Programming     | • Data Structures & Algorithms |
| • Shader Programming (GLSL, HLSL)          | • Gameplay Programming            | • AI Programming               |
| • Visual Scripting                         | • Version Control (Git, Perforce) | • Debugging & Profiling Tools  |
| • Team Collaboration                       | • Problem-Solving                 | • Communication                |

## ACADEMIC EXPERIENCE

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### Same Day Delivery

May 2025 - Present

*open-portfolio- Full Sail University*

- Implemented gameplay systems in Unreal Engine 5 using Blueprint Visual Scripting and C++.
- Created 6 AI behavior trees and blackboard systems enabling NPCs to patrol, chase, and steal packages dynamically, boosting player engagement.
- Enhanced game performance by ~40% by reducing actor count, configuring Level of Detail (LOD) settings, and compressing textures using profiling tools.
- Designed modular, open-world level layout with six unique locations for the player to explore.
- Developed 5+ custom Niagara particle effects for equipment and events, boosting visual clarity and responsiveness.

### Galaxy Defenders

March 2025 - April 2025

*Project and Portfolio V- Full Sail University*

- Implemented a dynamic audio system in C++ to manage 10+ sound cues, synchronizing events with gameplay and increasing player immersion.
- Engineered custom texture wrapping using the Vulkan API, reducing rendering artifacts and improving texture accuracy on 5+ models.
- Designed a responsive parallax background, tracking player movement, enhancing visual direction and spatial awareness.
- Collaborated with a 4-person team in weekly stand-ups and reviews to iterate on features and efficiently.

### Lone-Drake

May 2024 - June 2024

*Project and Portfolio III- Full Sail University*

- Designed 3 unique levels in Unity, incorporating platforming, exploration, and combat elements, each supporting multiple quest objectives.
- Developed a quest and dialogue system in C# supporting 6+ branching quest lines and 6 NPCs with reactive behavior.
- Built custom UI components (main menu, HUD, quest tracker) improving user experience.
- Delivered all milestone features on time by applying strong Time Management and Problem-Solving skills during a 3-person team.

## EXPERIENCE

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### Security Guard

June 2023 - Present

*Securitas critical infrastructure services- Chesapeake, VA*

- Monitor and regulate entry/exit points to prevent unauthorized access.
- Monitor security cameras and alarm systems for suspicious activity.
- Conduct routine perimeter and internal patrols to ensure building maintains secure.
- Enforce site-specific policies and safety protocols.
- Escort employees or visitors to parking areas or restricted zones when necessary.

### Operations Specialist

May 2017 - May 2022

*United States Navy- Norfolk, VA*

- Ensured safety of navigation.
- Monitored and tracked all contacts via visual and radar contact.
- Deployed in multiple warfare areas to include Air/Underwater/Surface/Strike.
- Drafted and distributed operational reports through internal communications.
- Communicated to naval and air traffic through radio contact.
- Maintained sailor qualifications and naval training standards.

## EDUCATION

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### Bachelor of Science in Game Development (B.S.)

August 2025

*Full Sail University, Winter Park FL*

GPA : 3.8 / 4.0.

Studied core disciplines including C++, 3D math, physics, AI, and low-level graphics rendering.

Developed games and systems using engines (Unreal Engine and Unity).

Built rendering pipelines using Vulkan/OpenGL and implemented real-time graphics solutions.

Applied object-oriented programming and data structures in performance-critical systems.

Gained hands-on experience with source control, debugging, and optimization.