

Collin Longoria

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Passionate and versatile game developer specializing in real-time graphics, engine programming, and systems implementation. Known for delivering scalable, high-performance solutions in both commercial and custom engines, with expertise in shader programming, ECS architecture, and efficient memory management. Skilled at leading technical development to create immersive experiences and solve complex challenges in interactive applications. Ready to drive innovation and add value across diverse software projects.

Education

- **B.Sc. Computer Science in Real-Time Interactive Simulation** **3.5 GPA**
DigiPen Institute of Technology **2022 – Present**
(Expected Graduation: May 2026)
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Skills

- **Languages:** C, C++, C#, GLSL, Java, Python, Lua
 - **Tools:** OpenGL, Vulkan, RenderDoc, Unreal Engine, GLFW, FMOD, ImGui, CMake
 - **Version Control:** Git, Subversion, Perforce
 - **Core Skills:** Real-Time Rendering, Deferred Shading, Shader Programming, Memory Management, ECS Architecture, Multithreading, Physics Simulation, Data Structures & Algorithms, 3D Math & Linear Algebra
 - **Other Skills:** Team Collaboration, Project Management, Conflict Resolution
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Projects

Gameplay Programmer | GAM150, DigiPen

Jan 2023 – Apr 2023

The Rolling Dead - 2D Top-Down Shooter Game

- Designed and implemented advanced data-driven state machines for dynamic and responsive enemy AI, enhancing gameplay challenge and engagement.
- Led the technical development of core gameplay mechanics, including player interaction, enemy behaviors, and environmental interactions, to ensure cohesive game flow.
- Developed custom serialization methods in C for efficient data loading and saving, optimizing game performance and enabling streamlined data handling.

Producer | GAM200/250, DigiPen

Aug 2023 – Aug 2024

Elementokens - 2D Turn-Based Strategy Game

- Led the team as Producer, coordinating cross-functional tasks, managing timelines, and ensuring quality standards across design, art, and programming.
- Built a custom game engine with a robust editor interface and real-time renderer using modern OpenGL, implementing features such as batch rendering, particle effects, and an efficient entity-component framework.
- Engineered core gameplay mechanics, including the turn-based combat system, AI-driven enemy behavior, and custom scripting to create a balanced and strategic game experience.
- Extended project development beyond the course, overseeing final additions and preparing the game for an upcoming release on Steam.

Engineering Lead | GAM300, DigiPen

Aug 2024 - Present

An Omen in the Mirror - 3D Puzzle Adventure Game

- Served as Engineering Lead using Unreal Engine 5, overseeing the team's task management, development timelines, and coding standards to ensure efficient and high-quality production.
- Collaborated closely with designers and artists, working directly with artists on lighting, VFX, and post-processing to achieve cohesive and immersive visuals aligned with gameplay goals.
- Developed core systems for complex puzzle interactions, enabling rapid prototyping and flexible puzzle design to accommodate evolving gameplay needs.
- Implemented scalable architecture for diverse puzzle mechanics, supporting a seamless integration of interactive elements and enhancing the player's immersive experience

Work Experience

Line Cook | Red Robin

Apr 2023 - Present

Redmond, Washington

- Prepared and cooked menu items to order in a fast-paced kitchen environment, maintaining high standards of food quality and presentation.
- Collaborated with kitchen staff to manage multiple orders and meet peak-time demands efficiently.
- Followed health and safety guidelines, ensuring a clean and organized work area.

Shift Lead | Saladworks

Aug 2021 – Aug 2022

Missouri City, Texas

- Led and supervised a team to ensure smooth daily operations and top-quality customer service.
- Managed inventory, resolved customer issues, and coordinated team tasks to meet business goals.
- Trained and mentored new employees, ensuring adherence to food safety standards and operational procedures.
- Handled cash register reconciliation and end-of-shift reporting, ensuring accuracy in transactions.

References

- References available upon request.
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