

# SALEM RICHIE *GAMEPLAY ENGINEER*

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## GAME DEVELOPMENT EXPERIENCE

- AI Programmer & Design Lead**

Aug 2024 - Jul 2025

*Eidolon: Fate of Fools* — Tarot-Inspired Arena Shooter Game (*Team of 8; Unreal Engine 5*)

  - Equipped level designers with robust tools and documentation for integrating AI features into levels, including special navigation links for arena gimmicks, environmental query areas, and custom features such as rocket jumps
  - Facilitated 15+ multiplayer playtests by overseeing play and feedback procedures to assess the effectiveness of specific design elements, allowing iterative improvement of game systems, levels, art content, and player outcomes
  - Leveraged gameplay telemetry tools to debug and improve multiple gameplay features, including combat difficulty adjustments informed by analyzing kill data and AI navigation patches revealed by positional tracking insights
  - Designed 20+ first-person combat abilities with contextual utility variables representing realtime combat efficacy to inform AI combatants how to utilize a variety of different weapons and abilities with their intended gameplay strategies
- Technical Lead & AI Programmer**

Aug 2023 - Jul 2024

*Cats & Critters: A Dungeon Claw-er* — Multiplayer Adventure Game (*Team of 9; Unity Engine*)

  - Guided the technical development of a couch co-op party game by conducting production meetings, compiling weekly builds, and tending to stakeholder confidence to maintain project momentum, ultimately shipping to Steam
  - Enabled dynamic difficulty scaling in combat encounters across 200+ levels by engineering and documenting a procedural encounter system through which designers could script various outcomes influenced by gameplay stats
  - Designed a flexible utility AI system by implementing response curve tools to create responsive agents that observe game scenarios during runtime, allowing designers to author AI behaviors that adapt to player strategies on the fly
- Technical Lead & Systems Programmer**

Oct 2022 - Apr 2023

*Inline: Out of Time* — Time-Attack Action Platformer Game (*Team of 12; Proprietary Engine*)

  - Supervised six engineers to ship a complete game in a custom C++ engine: earning 90% positive Steam reviews
  - Collaborated with level designers and artists to improve custom pipeline tools for level content, prioritizing iteration speed and asynchronous workflows by enabling level designers to prototype and playtest with minimal art conflict
  - Increased framerate performance by 275% by profiling and optimizing collision detection algorithms in code reviews

## PROFESSIONAL EXPERIENCE

- Software Engineer | Scaffold Assembly Training Tool**

Jul 2025 - Dec 2025

*Reality Frame LLC*

  - Architected a modular building system utilizing 3D vector math, projections, and local coordinate systems to allow construction workers with minimal 3D software experience to interface intuitively with a simulated work site
- Conference Associate**

Mar 2024; Mar 2025

*Game Developers Conference (GDC)*

  - Demonstrated teamwork and reliability by liaising between staff and attendees to streamline conference operations
- Teaching Assistant | C++ and Game Engine Architecture**

Sep 2022 - Jul 2023

*DigiPen Institute of Technology*

  - Assisted engineers with memory management and update loop implementations within custom C++ game engines

## SKILLS

Technical Development	Tools and Strategies	Team Collaboration
3D Vector Mathematics and Physics;	Unreal Engine 5; Blueprints Scripting; C++;	Cross-Functional Communication;
AI Behaviors; Technical Game Design;	Gameplay Ability System; Code Unit Testing;	Content Pipeline Management;
Networking Replication; Algorithms	Prototyping and Iteration; Playtest Analysis	Reliable Problem Solving

## EDUCATION

- Bachelor of Science in Computer Science and Game Design**

Apr 2025

*DigiPen Institute of Technology* — Redmond, WA

  - Class Valedictorian (*GPA: 4.0*)