

SALEM RICHIE *GAMEPLAY ENGINEER*

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SKILLS

Development

- Algorithm Design
- Data Structures
- Game Engine Architecture

Languages

- Advanced C++
- Unreal Blueprints
- C#

Tools

- Unreal Engine
- Unity Engine
- Perforce (Helix Core)

GAME DEVELOPMENT EXPERIENCE

AI Programmer | Creative Director

Aug 2024 - Present

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

- Engineered emergent combat behavior by extending AI sense and gameplay features into a reasoning system
- Authored custom air control logic through Behavior Tree tasks to allow AI agents to fluidly traverse surreal arenas
- Utilized the Environment Query System to inform AI navigation by assessing danger and utility at sample points
- Designed 20+ tarot-inspired abilities by adapting traditional card symbolism into multiplayer combat mechanics
- Evaluated specific design outcomes across 10+ multiplayer playtests by overseeing play and feedback procedures

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 using the Unity Engine and shipped it to Steam
- Developed a multiplayer-adaptive encounter system to enable designers to author 200+ reusable level segments
- Architected a utility-based AI system by implementing response curves to support flexible multiplayer scenarios
- Implemented AI navigation throughout procedurally-generated levels using runtime navigation mesh baking
- Compiled weekly development builds and conducted technical production meetings to maintain project momentum

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 develop and ship a custom-engine game: earning 90% positive Steam reviews
- Refactored algorithms to optimize level geometry and collision detection resulting in a 275% framerate increase
- Spearheaded a physics system to capture design outcomes for player movement through stylized parkour action
- Integrated in-game progression systems with the Steamworks API to reward players with 15+ achievements
- Standardized the level content pipeline by creating tools and asset specifications to enable efficient design iteration

EXTRACURRICULAR EXPERIENCE

Resident Assistant

Apr 2023 - Present

DigiPen Housing, L.L.C.

Conference Associate

Mar 2024

Game Developers Conference (GDC)

Teaching Assistant | C++ and Game Engine Architecture

Sep 2022 - Jul 2023

DigiPen Institute of Technology

ACHIEVEMENTS AND AWARDS

DigiPen Institutional Full-Tuition Grant

Jul 2021

8 Bits to Infinity Text-Only Game Jam Community Choice Award (*of 28 Entries*)

Dec 2019

SoHacks 5 Hackathon "Best Intermediate Hack" Award (*of 85 Entries*)

Aug 2018

EDUCATION

Bachelor of Science in Computer Science and Game Design

Expected: Apr 2025

DigiPen Institute of Technology — Redmond, WA

- Class Valedictorian (*GPA: 4.0*)