# **SALEM RICHIE** GAMEPLAY PROGRAMMER

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## GAME DEVELOPMENT EXPERIENCE

## Al Programmer | Creative Director

Aug 2024 - Present

Eidolon: Fate of Fools — Tarot-Inspired Arena Shooter Game (Collegiate Team of 8)

- 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 Al 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

## Al Programmer | Technical Lead

Aug 2023 - Jul 2024

Cats & Critters: A Dungeon Claw-er — Multiplayer Adventure Game (Collegiate Team of 9)

- 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

#### Systems Programmer | Technical Lead

Oct 2022 - Apr 2023

Inline: Out of Time — Time-Attack Action Platformer Game (Collegiate Team of 12)

- 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

## PROFESSIONAL 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

DigiPen Institute of Technology

Sep 2022 - Jul 2023

#### 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**

DigiPen Institute of Technology — Redmond, WA

• GPA: 4.0

Expected: Apr 2025

## **SKILLS**

# Development

- Algorithm Design
- Data Structures
- Game Engine Architecture
- Bug Triaging

#### Languages

- Advanced C++
- Unreal Blueprints
- C#
- Python

## Tools

- Microsoft Visual Studio
- Unreal Engine
- Unity Engine
- Perforce (Helix Core)