SALEM RICHIE GAMEPLAY PROGRAMMER

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ACADEMIC PROJECTS

Al Programmer | Technical Lead

Aug 2023 - Jul 2024

Cats & Critters: A Dungeon Claw-er — Multiplayer Party Adventure Game

- Founded a nine-person team to develop an approachable multiplayer party game using the Unity Engine
- Authored a utility-based AI system by implementing response curves to support flexible multiplayer scenarios
- Implemented AI navigation throughout procedurally-generated levels using dynamic navigation meshes
- 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

- Supervised six engineers on a twelve-person team to develop and ship a custom C++ game to Steam
- Designed algorithms to optimize level geometry and collision detection resulting in a 26% framerate increase
- Developed a physics system alongside designer goals for player movement to best allow parkour-style action
- · Created tools and asset standards for the level content pipeline to enable efficient design and art iteration

Physics Programmer | Level Designer

Jan 2022 - Apr 2022

Nowhere to Grow — Physics-Based Puzzle Platformer Game

- Collaborated on a team of six engineers to create and design a complete game in C across four months
- Implemented an object management system using custom data structures to manage memory resources
- Simulated physical properties such as mass and restitution to calculate impulse forces and resolve collision
- Designed game mechanics and puzzles to showcase physics simulation through player interaction

EDUCATION

Bachelor of Science in Computer Science and Game Design

Expected: Apr 2025

DigiPen Institute of Technology — Redmond, WA

• GPA: 4.0

Associate of Arts in Liberal Arts

May 2020

Northeast Lakeview College — Universal City, TX

GPA: 4.0

ACADEMIC 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

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

SKILLS

Development Languages

- Algorithm Analysis/Design
- Data Structures
- Game Engine Architecture

Advanced C/C++

Python

Microsoft Visual Studio

Tools

- C# **Unity Engine**
 - Git Source Control