

Carlos D. Gutierrez

Senior Game Programmer

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SKILLS & SOFTWARE

Core Skills

- Software Engineering
- Project Management
- Agile Development
- AI/NPC Development
- Game Design
- Object-Oriented Design
- Linear Algebra

Languages

- C++
- OpenGL & GLSL
- C#
- Unreal Engine 4 Blueprint
- Lua
- Python
- Perl

Software

- Unreal Engine 4
- CryEngine
- Perforce
- Visual Studio
- Jira
- Photoshop
- 3DSMax SDK

PROFESSIONAL GAME DEVELOPMENT EXPERIENCE

UNANNOUNCED PROJECT – Arkane Studios, Austin, Texas

Current Work

Senior AI/Gameplay Engineer

- Owned and developed core AI/NPC systems

PREY MOONCRASH (Immersive Sim Roguelite DLC) – Arkane Studios, Austin, Texas

June 2018

AI/Gameplay Engineer

CryEngine

- Owned and implemented all behaviors and abilities for new NPC - the Moonshark
 - Implemented systemically blind NPC that senses players who make noise or step on the Moon's surface
 - Developed underground pursuit movement and above-ground emerge and attack movement
 - Implemented all abilities, include ground slams and levitating/throwing physics enabled boulders
- Primary point of contact and owner of programming needs for remaining NPCs

PREY (Immersive Sim) – Arkane Studios, Austin, Texas

May 2017

AI/Gameplay Engineer

CryEngine

- Collaborated with designers and producers to establish feature requirements, set deliverables, and iterate on features
- Primary Owner and point of contact for programming needs related to Phantoms, Technopath, Weaver, and Human NPCs
- Owned and implemented numerous core NPC behaviors, including Combat, Search, Hunt
- Implemented behaviors and special attributes for Phantom, Mimic, Technopath, Telepath, Human, Weaver, and Nightmare
- Developed and owned combat abilities and ability logic for all NPCs
- Owned and implemented Combat Role Manager to manage multiple NPCs roles fighting a target
- Owned and developed Unreachable Targeting System - finds attack position when target moves to an unreachable location
- Added hotloading and multi-select functionality to CryEngine Library editor, improving designer iteration time
- Implemented numerous scripting and behavior interfaces for designers to use when scripting NPCs
- Set up interfaces and integrated work from other departments (such as animation, sound, VFX) into NPCs
- Guided ramp-up for new contractors learning NPC behavior, perception, special attribute, and ability systems

ADDITIONAL PROFESSIONAL EXPERIENCE

Lattice Semiconductor, San Jose, California

May – August 2012

Software Engineering Intern

- Implemented and tested new message APIs for proprietary Lattice Diamond© environment
- Automated removal of legacy code and replaced with new APIs for Lattice Diamond© environment
- Developed an algorithm and implementation for Lattice's wire Place & Route utility
- Created utility scripts and programs for more efficient work flow and data management

EDUCATION

Masters of Interactive Technology - The Guildhall at Southern Methodist University, Plano, Texas

January 2014

Specialization in Software Development

- Thesis: *Fuzzy Fitness Scoring for Companion AI Strategy Selection*
- Capstone Team Game Project Role: Game Designer
 - Selected to be Creative Lead for project and facilitated overall game vision to team of 15 other students
 - Designed and balanced majority of game systems, including items, upgrades, enemies, and environment

Bachelors of Science in Computer Science - Southern Methodist University, Dallas Texas

May 2012

Honors in Liberal Arts