
Mandy Otero

Email: aro.freelance@gmail.com

Portfolio: <https://aroragames.com>

Software Developer with 15+ published applications. Passionate about game design and development. Dedicated to creating a positive experience for users through intelligent interface design and systems. Inspired to design and create. Willing to incorporate feedback, collaboration, and continuous learning on the path to making the best user-end experience possible.

Skill

Unreal Engine 5

C++

Blueprints

Gamemaker Studio / GML

Unity Engine

C#

Github

Javascript

Android Studios

Kotlin

Xcode

Swift

Firebase

Room Database

Game Design Analysis

Game Architecture Principles

Software Testing and Iteration

Copywriting and Editing

Pixel Art Asset Creation

Particle Effect Creation

HTML / CSS / PHP / XML

Application and Game Development Experience

Platformer Prototype (Gamemaker Studio 2)

July 2024

- Built a fully functional platforming game prototype utilizing Gamemaker 2 Studio and GML. Incorporated precise tileset collisions, thereby enabling a 130% faster response time between user input and character movement.
- Served as the project manager and navigated scheduling on a short timetable by managing scope. Set focused goals to achieve creation of a viable prototype in 2 weeks.
- Served as the lead game designer, conceptualizing a theme into an actionable GDD.
- Served as the lead programmer and executed the vision of the GDD by writing GML code to ultimately achieve the gameplay goals of the project.
- Served as lead artist and animator, using Aseprite to create all of the sprites and particle effects used in the game.
- Served as the lead level designer, by mapping out concepts to achieve the goal of multiple paths leading to the boss. Utilized multiple tileset layers to create a responsive level integrated with the game architecture. Additionally managed the QA process by rigorously testing the levels with the team to iterate on the design so that it was challenging but satisfying for the player.
- You can find a demo version here: <https://arorasoftware.itch.io/luminaro>

Tactical SRPG (Gamemaker Studio 2)

April 2024 - Present

- Designed and developed a Fire Emblem style prototype using turn-based combat on a tactical grid.
- The project makes use of CSVs which enables a robust system of over 75 classes with own unique abilities
- Includes scalable systems for: level editing, cutscenes, custom abilities, missions, elemental affinity and multi-tiered attributes. It is designed to enable the creation of story-based tactical games.

Top Down RPG (Unreal 5.3 C++ and Blueprints)

December 2023 - April 2024

- Leveraged the Gameplay Ability System framework along with C++ and Blueprints to build a flexible ability system which uses attributes, modifiers, and custom Niagara effects.
- Created character object class hierarchy to allow for shared functionality between player character all enemy classes. Shared functionality included movement, gameplay attributes, gameplay effects and gameplay tags.

- Made use of async tasks to allow for seamless propagation of data between the different systems, to dynamically update UI elements and derived attributes. This allowed for robust, responsive UX using the character attributes.

Action RPG (Unreal 5.2 C++ and Blueprints)

July 2023 - December 2023

- Designed huge breathtaking landscapes using modular levels to load data in proximity to the player. This allowed for open world exploration at a fraction of the system resources.
- Used enemy patrol patterns, aggro conditions and attack AI to achieve dynamic enemy movement.
- Experienced with troubleshooting IK system to successfully achieve responsive foot movement for character rigs on sloped or multilevel terrain. Achieved realistic character model movement in complex mountain landscape.
- Created custom attack animations using Root Motion Attacks and Motion Warping as well as Box Trace and Anim Notifications in Blueprints to create detailed attack animations with accurate hit detection and sound effects.
- Designed custom Niagara Effects for use with attack animations as well as items in the open world

Applications from Android to IOS and IOS to Android

January 2023 - June 2023

- Achieved cross platform mobile development by porting my projects between mobile platforms.

IOS Application Development

2022

- Designed, developed and published productivity applications and games for IOS devices including a Calendar, Tasklist, Journal, Dice Game, Choose Your Own Adventure Story, and Tip Calculator
- Proficient in using Swift and Xcode to develop clean, performant applications.
- Made use of machine learning techniques as well as augmented reality applications.

Android Application Development

2020 - 2021

- Designed, developed and published Android applications including productivity applications such as a Calendar, Tasklist, Photo Journal, and Countdown Timer as well as Dice Games, and a Music Player.
- Well versed in Model, View, Controller Application development process and skilled with creating applications with a clean and focused UX and UI design
- Experienced with building, using and migrating databases as well as fixing corrupted databases without losing data.

Match 3 (Unity)

Spring 2020

- Designed and developed a 2D game in Unity utilizing C# in Visual Studio based on the classic game Memory but utilizing three card matches and implemented a system of abilities based on the character chosen by the player
- Integrated a system of Achievement and Daily Quests as well as a currency progression to allow the player to unlock new characters as well as buy boost items.
- Gained experience with packaging and releasing a Unity application on Android as well as integrating payment.

Certifications

Unreal Engine
Android

iOS
Design

Unreal Engine 5 C++ The Ultimate Game Developer Course (2023)
The Comprehensive 2021 Android Development (2021)
Kotlin Complete Android App Development (2022)
iOS & Swift - The Complete iOS App Development (2022)
CalArts Game Design: Art and Concepts (2023)

Professional Experience

Sky is the Limit LLC

December 2014 - 2023

Producer & Video Editor

- Involved in all aspects of video creation including concept, research, filming and editing for over 800 videos.
 - Wrote copy and handled search engine optimization for all videos to help drive traffic and improve click rate.
 - Assisted with testing and gameplay recording to create accurate informational guides.
 - Led communication with the community to provide a positive and responsive creator relationship with viewers
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