Eric Versaw
Game Developer

Contact

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Muskegon MI, 49441

https://ericversaw.netlify.app/

Education

Ferris State University
Bachelor of Digital Animation and Game Design, Fall 2021

Muskegon Community College
Associates of Science and Arts, June 2018

Technical Skills

Game Development:
Unity, Unreal Engine, & Pyame

Programming Languages:
C#, Python, Actionscript, Javascript, HTML, CSS, PHP & MySQL

Adobe:
Photoshop, Illustrator, Premiere Pro, After Effects, Audition & Indesign

Autodesk:
3ds Max, Maya, AutoCAD, Inventor, and Revit

Work Experience

May 2019 - Present
ADAC Automotive - Metrology Technician
Grand Rapids, MI

Used GOM 3D Scanners to digitize automotive parts.
Learned to use ATOS, a software that can utilize GOM scanners for 3D scanning.
Used ATOS to scan and inspect measurments on actual parts compared to CAD parts.
Created computer programming scripts in Python to use within ATOS & ADAC's mapped drives.

May 2016 - July 2018
Menards, Sales Associate in Paint Department
Muskegon, MI

Sold paint and grocery products to customers.
Mixed indoor/outdoor paints and stains for customers including color matching and color correction options.
Stocked shelves in the paint, grocery, and register departments.
Orgainzed overstock in paint and grocery department. Trained on Electric Standup Forklift (Big Joe Lift) to reach overstock.

Volunteer Work

July 2019
CATCH Camp

A week of sports, games, and crafts for children living in inner-city Muskegon. I helped set up the activities and showed the kids how to play the games.

Escape the Beyond

Eric Versaw

Ferris State University

Digital Animation & Game Design

DAGD 499 - Capstone Project

Table of Contents

Design Document

“Where am I? What did I do to deserve this? Why does it hurt so much? Is this real or artificial? Does it even matter because the pain feels so real.”

Executive Summary

Escape the Beyond is a First-Person Horror video game that will make you solve the mystery of why you are in the afterlife. You will need to solve puzzles, collect items, and avoid demonic entities in order to answer the questions of why you are in this Hell. Solving puzzles that break the 4th wall of the game, collecting relic pieces, and solving riddles will help you gain the knowledge and items you need to open the door to the basement which seems to be the only way out. This game was made for horror-fans and adrenaline junkies who love a good scare.

Value Proposition

Escape the Beyond is a First-Person Horror video game made for horror-fans and adrenaline junkies to satisfy your needs to solve unique puzzles, discover story-line elements, and escape horrifying monsters.

Story

Teaser/Hook

Awaking in an unknown and eerie lit mansion, the player must solve the puzzling questions of where he is, while avoiding the demonic danger that presents itself to him.

Story

Mr. Deever is an alcoholic psychopath who lives in New York City and hops between jobs almost as often as his relationships. He cannot keep a job for his life and has no respect for anyone or anything. Having the cynical and unsympathetic traits, Deever does many petty theft jobs to keep a float by the high prices of city living. Deever has a secret that nobody knows about, being the time he drove back to his apartment blackout from the bar. Deever performed a hit and run on a young teenage boy and his friend and Deever barely remembers the night. He being irresponsible and an alcoholic killed the one boy and put the other one in a coma. Deever only remembers bits and pieces of that night, and his selfish personality blocks the truth from coming back to him. Being in denial about the situation planted a deep seed of guilt in Deever's mind that has helped Deever's alcoholism and lack of stability to worsen. One day Deever found an advertisement in the newspaper that gave him hope in these trying times. The ad was for

volunteers to test their simulator that directly plugs into the users brain for a full in-depth experience like no other. The ad was not specific to what the company and motives of the company were. The company was SocialChips, a psychological, computer science company made to create apps and simulations specific to be in a highly addictive manner to use for high profits. The simulation that Deever signed up to test was for a program that had the user relive their most favorite experience in their life and to somehow infuse the experience with advertising for other companies to buy into. Deever happens to be the fifth test for this kind of high end simulation and him having a deep seed of fear and guilt in his head, ends up sending him to a simulated Hell that he has to try to break out of.

Target Audience

Horror fans with a mature age range (18-35). People who like to solve puzzles, solve mysteries, and evade danger.

Design Requirements

Constraints

Platform

Windows 10 OS

Technical

- Run on Windows 10 device

- File fromating - PNG image files for images, C# files for scripts, FBX files for 3D assets, WAV files for sounds, one Unity file, and final exe file for game build
- Keyboard and mouse controls only

Communication

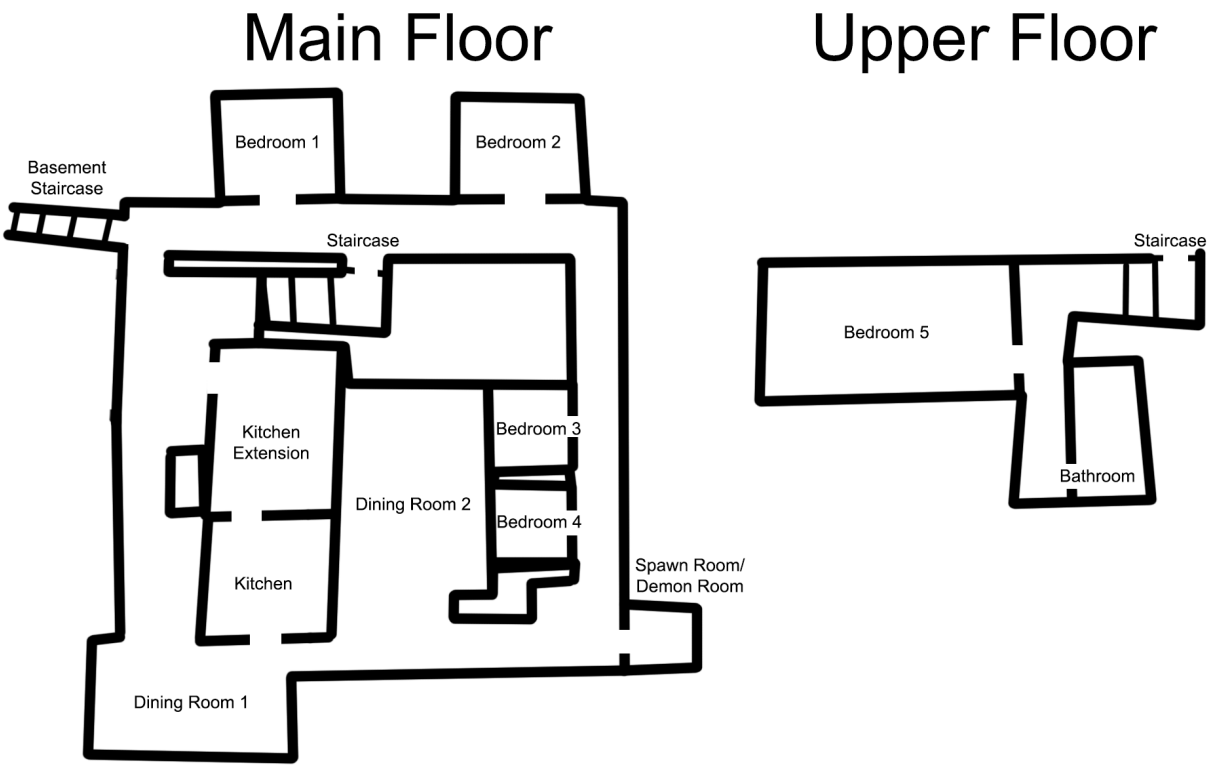
Discord or Ferris email for communications:

Erkman101#7146 & versawe@ferris.edu

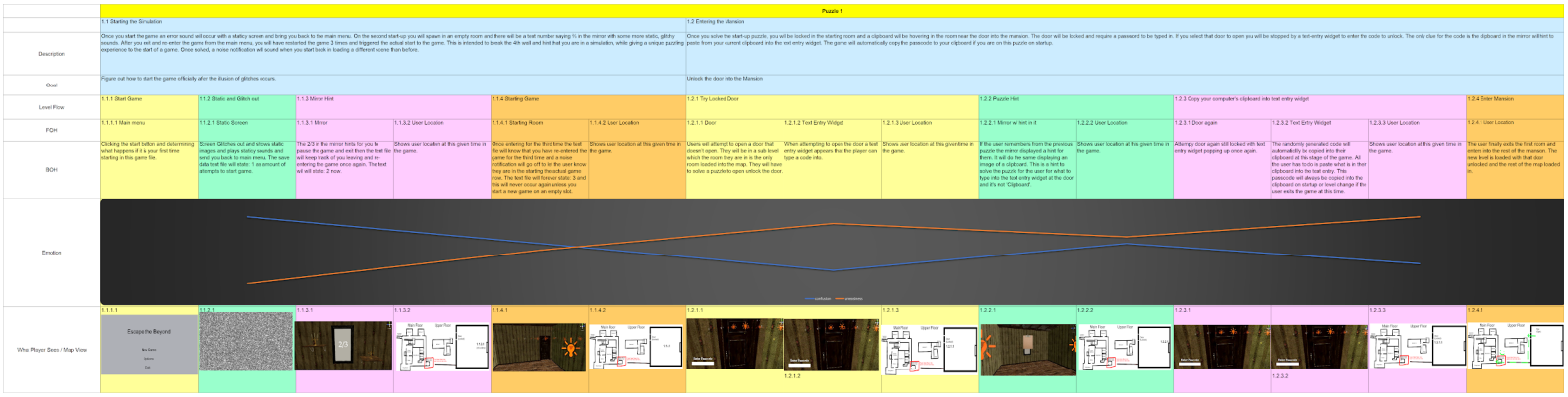
Software

Unity for development, & purchased assets from Unity Asset Store for art.

Level Design



Journey Map



Game Mechanics

Character Controls

- WASD to move
- Mouse - Look around
- Left-click Interact with objects
- Spacebar - Jump
- E - Open/Shut Doors
- F - Toggle flashlight
- Esc key to pause

AI States & Mechanics

Below are the described states of the AI and how they were developed in detail.

Patrol (State)

There will be scattered game objects around the map called “Patrol Points” in which the AI will patrol from one to the other in a certain order. They will be named PatrolPoint# and there will be around 4 or 5 of them scattered evenly throughout the map. The AI will only exit Patrol mode if he spots the player via raycasting, and transition into the chase state; or if he runs into a closed door, which he will destroy and then continue to patrol again. When the AI gets to a patrol point, the patrol point will have a trigger box collider volume surrounding the point. The AI’s box collider will collide with the patrol point and the AI’s target patrol point will increment, to determine where AI will travel to next. The AI’s animation state will be a calm walking animation

and will spawn into the state more common than the other AI states. There will be a random chance to go into the screaming state from the patrol state.

Dev Process for Patrol

How I made the patrol mechanic was by creating a prefab called “PatrolPoint” each patrol point had a box collider on it and was marked as a trigger box. The patrol points are not visible in the scene to the player. The AI has an OnTriggerEnter function to be able to tell when he is entering the hitbox volume. The AI’s main script has a list to determine which patrol point he is moving towards and when he hits the trigger volume the number increments to the next number on the list and he moves on to the next patrol point. Once he gets to the last point it automatically starts over and will go on until he sees the player or despawns.

Chase (State)

There will be a possible chance that the AI will spawn in the chase state. In the chase state the AI will always know where the player is and will move towards the player no matter what. There is a 10 second timer that goes down when the raycasts from the AI do not hit the player. When the 10 second timer runs out the AI will exit the chase state and go into the tracking state. If the AI’s raycasts ever hit the player the AI will immediately go into the chase state, or the ten second timer will reset back to the beginning. While in the chasing state there will be a chance for the AI to briefly blink towards the player slightly. This will be a mechanic to make the chases more thrilling and scarier while also giving the AI a speed advantage.

Dev Process for Chase

There are multiple raycasts casting out of the front of the AI. If one of those hit the player the AI will switch into the Chase state. When in the chase state if the player is not hit by one of the raycasts a 10-second timer goes down and if it hits 0 the AI will not chase the player anymore. The AI chases the player by using the NavMesh class specifically SetDestination function targeted at the player. There is also a random countdown timer that goes off every 5 seconds and when it goes off there is a 30% chance that the NavMesh.speed variable is changed to a high speed for 0.25 seconds to give the AI a speed boost and make it happen fast so it seems more like a blink than a speed increase. If you get too close to the AI he will jump-scare you in any state but this state he will be constantly chasing you.

Track & Search (State)

After the 10 second timer on the chase mechanic is up and the AI does not see the player again, the AI will switch to the tracking state. Immediately once the timer is up an invisible game object is created where the player is currently standing. The AI will go to that last known location of the player, basically tracking his last known movements and general area of where the player was at. If the AI does not see the player again he will stop at that last known location and then transition into the search state. The search state only comes after the tracking state and will only be interrupted if the AI sees the player, or if the search is unsuccessful, the AI will go back into the patrol state. Once the transition happens from the tracking state to the searching state, a decent sized trigger box collider will turn on and take all of the nearest advanced search point game objects and append them into a list. After that is completed the AI will then go through the list points, these points being in all nearby rooms from the last known

location of the player, and break into/search each room where the player could possibly be at. The AI has a 25 second timer to search the room, if the AI does not make it into the room he will move on to the next adv point in the foreach loop. The AI will typically move onto the adv patrol point and then stand there and look around.

Dev Process for Track & Search

When the AI is chasing the player and the 10 second timer is up, from a raycast not hitting the player, the AI switches to the tracking state. In the tracking state a copy of the current location of the player right when the 10-second timer runs out. The copy is made by a prefab called a Search Point being spawned into the game on the player's current location. This Search point will be the new target for the SetDestination function on the AI. Once the AI gets to the Search point and he has not seen the player, it will automatically switch into the search state. The script on the AI called SearchForPoints.cs will activate at this point. All around the map in every room and other key locations there are prefabs called AdvancedSearchPoints (ASP). In the SearchForPoints script it uses OnEnable and OnDisable functions. OnEnable the script searches for each ASP within a certain distance on the x, y, and z. So essentially if the AI is upstairs he only searches through points nearby and upstairs. The points are placed typically in the middle of rooms or in open spaces. After the script searches through the list of nearby points those points close enough are put into a target list and then the AI will have 25 seconds to move to each point, to simulate the AI searching around for the player in nearby hiding spots and nearby rooms. I use a coroutine to pace this searching state for the AI, and the AI can only be interrupted from this state if he sees the player or finishes the search. When the AI finishes the search or spots the player the script disables and the OnDisable function resets all variables within the script, so the AI is ready to search the next time he loses the player.

Destroy (Mechanic)

I will consider Destroy to be a sub-state because during any state the AI runs into a door, the destroyed state will interrupt any state he is in temporarily, so the AI can get rid of obstacles, such as doors and wardrobes. The AI will have a trigger box in front of him that will detect if he is about to run into a door, which will trigger the animation and destruction of that said door. This state will assist the AI so he can patrol and chase without interruptions and iot will make the game harder for the player, him not being able to use the doors later to slow down or hide from the AI.

Dev Process for Destroy

There is a box collider that is a trigger in front of the AI and whenever the AI runs into a door or wardrobe he will pause what he is doing and destroy that said object. This pauses what state the AI is in, but does not change it. So this is considered a sub-class. The AI will only destroy the door if they are closed and in the way. This involves going into the door's script and checking if the rotational values are set to the starting values.

Screaming (State)

The screaming state is a state in which the AI will randomly go into during the patrol state. Every 10 seconds there will be a 20% chance for the AI to go into the screaming state while patrolling. When the AI transitions into the screaming state, a loud ear-retching sound will

emit from the AI's location and the AI will commence to jump around quickly in a star-shaped formation. This will make the AI unpredictable and give the AI a chance to catch the player off-guard. If the AI sees the player in the screaming state, the AI will transition into the Chase State +.

Dev Process for Screaming

When the AI enters the screaming state a GameObject will spawn at the AI's location called a screaming obj. The screaming object is an object with a center point and five other points around the center to make the shape of a star. The AI then iterates through all of the points by moving to their position in the order to resemble a star. This gives the AI a chance to catch the player off guard and punish the player for being seen in such a state.

Chase State + (State)

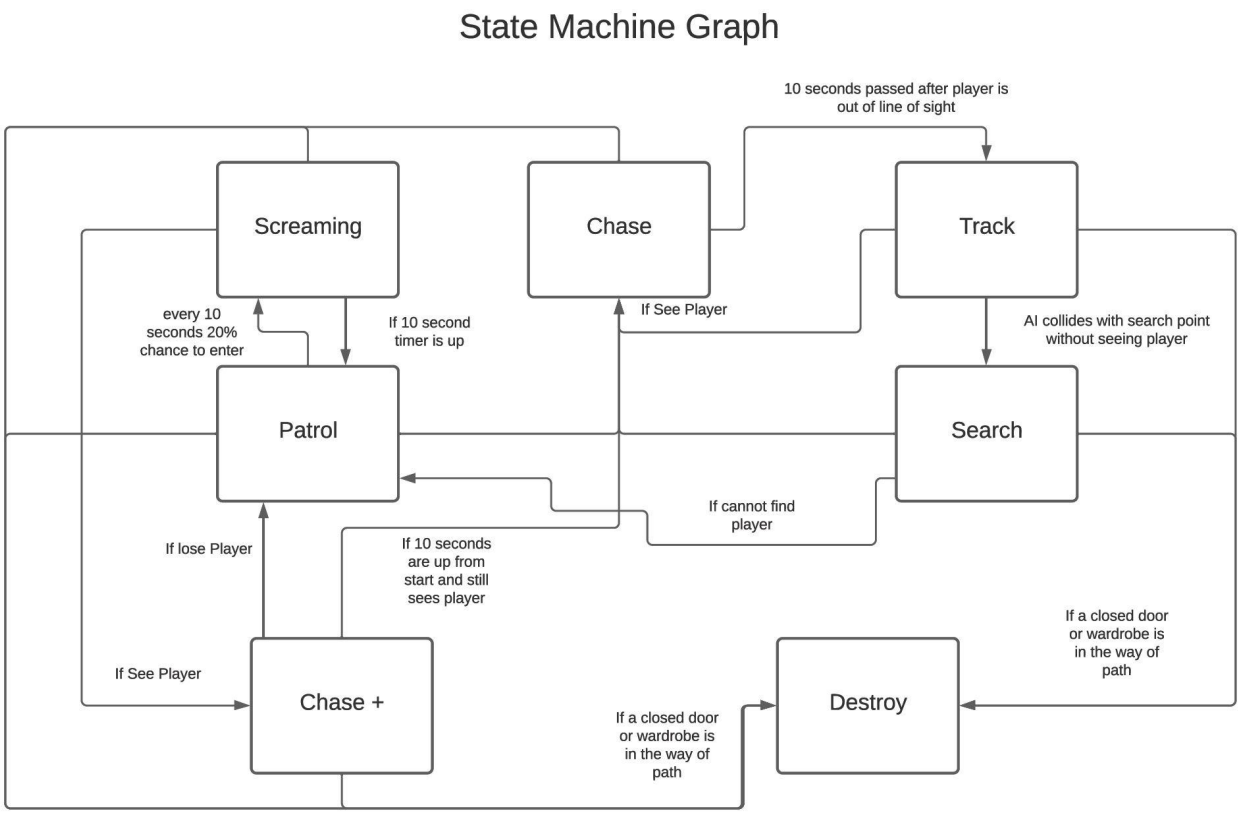
When the AI sees the player while in the screaming state, the AI will transition into the Chase State +. When in the chase state + the AI will move double it's typical speed for ten seconds, then transition back into the chase state to continue to follow the player. This state is the punishing result for the player after being seen in the screaming state.

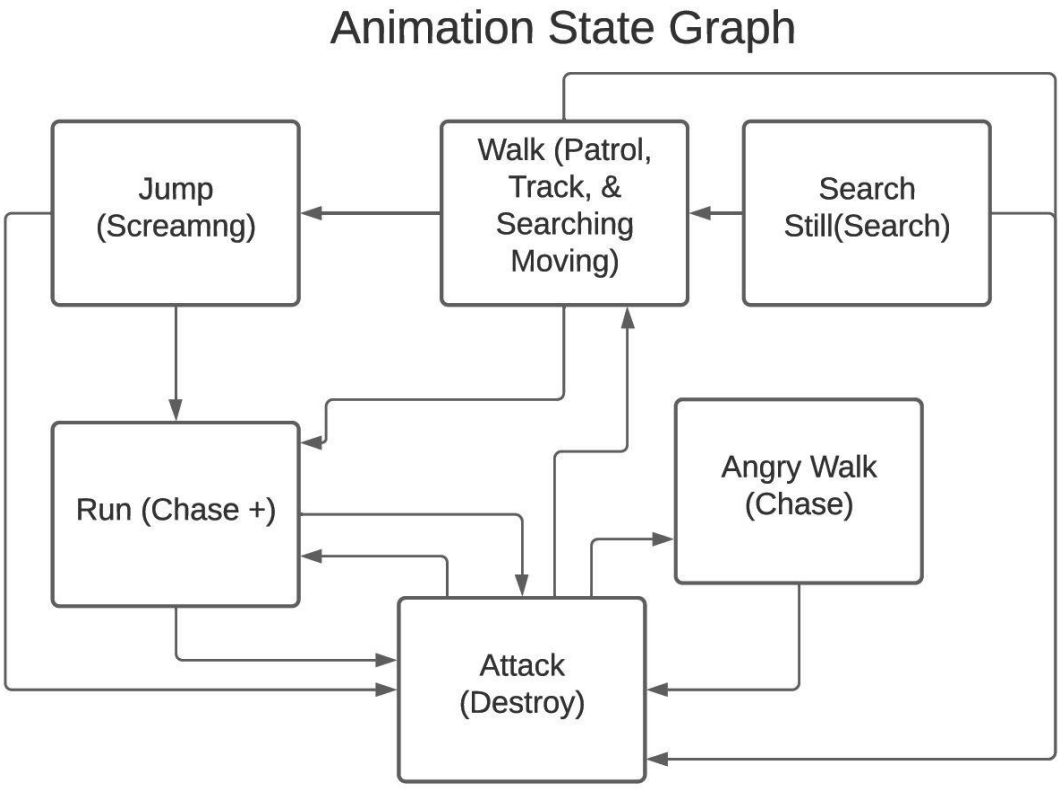
Dev Process for Chase State +

When the AI sees the are booleans that check to see if the AI was just in the screaming state or not. If the AI was not in the screaming state then the AI will transition into the normal Chase State. If the AI is in the screamin state, or was by a half-second delay, then the AI will transition into the Chase State +. The state machine will make sure the AI is moving it's base

speed * 2, and have a 10-second timer until the AI transitions back into the chase state or the tracking state if it loses sight of the player.

AI State Machine Graphs




Animation State Graph
Jump (Screamng)
Walk (Patrol, Track, & Searching Moving)
Search Still(Search)
Run (Chase +)
Angry Walk (Chase)
Attack (Destroy)

Puzzle Mechanics

Summary

In this game there will be multiple puzzles to solve while being hunted down by the AI. In order to beat the game you must make your way into the basement by collecting all the relic pieces to construct a key, and then play a demon in a game of Questions and Answers. After surviving from gathering the relic parts and successfully winning in Questions and Answers, only then do you have the items and knowledge to unlock the door of the basement that leads to the answers you are seeking as to why you are there.

Puzzle 1: Starting the simulation

This is an interesting puzzle that will track how many times you have started and quit the application. The game will only officially start once you have restarting the application 3 times. The first time you click “New Game” the app will instantly quit. The second time you start the game you will see that the first slot has data in it. You will be able to select it, but you will only spawn in a small room and won’t be able to do much besides see “2/3” floating in the room. This is a hint to restart the game one more time. After you do this and continue that save game slot, the game will officially start, spawning you in the main level. This puzzle is a hint at the story of this being in a simulation since it breaks the 4th wall of having the game display glitchy and technology-based behavior.

Puzzle 2: Digital/Clipboard Code

The second puzzle involves you finding a way out of the first room that you are in. The clue left behind is a note representing what is to look like a specific path on your computer with a specific file on the end. This will involve the player going into their file explorer and finding this file, which will help aid the player into unlocking the first door that leads into the rest of the house. Another possible version of this puzzle might be a 3D model of a clipboard and having the code to get through the door copied into your clipboard. This puzzle is another hint for the fact that this story is in a simulation since it breaks the 4th wall of you having to look through your file explorer on your pc.

Puzzle 3: Relic collection

You will not get another prompt until you look through the map to find the door to the basement which will look of interest to the player. In this phase there will be no danger. Once you find the door an audio and visual prompt will come up displaying to the player that the basement door needs to be unlocked and entered. The player will need to collect 20 relics to form a key to the basement. Each key collected will go into a formula to determine how many AI's are spawned into the map all at once. There will be a grand total of 3 all at once to scale the difficulty for the player to complete the task the closer they are to completion. The player can only get caught 3 times and then they will lose. The relics will be spaced out in random locations around the map and spawn once the player first finds the basement door.

Puzzle 4: Questions and Answers

When you go to the door with all the relics a sound notification will play that indicates you need to play a game of Questions and Answers with a demon. The demon will spawn in the first room where you spawned in the beginning of the game and have new terrible sounds playing out of the room to help attract the player back there. Once you go up and interact with the demon it will bring you through 7-8 questions that the player will need to answer and you only have three chances to answer correctly. If you guess one question wrong you will get jumpscared by the demon and take one strike indicated similar to your health. The game of Questions and Answers was made to get into the heads of the player and the types of questions asked could be riddles, trivia, or personal questions to the player. For the personal questions to the player you will have to use hints throughout the game to indicate the personal question's answers and the rest will just be your personal knowledge being tested. The questions will be randomly chosen from a database within a script and will be answered in the form of multiple-choice questions or text entry questions.

List of Riddles:

1. The person who built it sold it. The person who bought it never used it. The person who used it never saw it. What is it? - A coffin
2. I have no feet to dance, I have no eyes to see, I have no life to live or die but yet I do all three. What am I? - Fire
3. I have cities, but no houses. I have mountains, but no trees. I have water, but no fish. What am I? - A Map
4. When you have me more, you can see only less. What Am I? - Darkness

5. I don't have eyes, but once I did see. Once I had thoughts, but now I'm white and empty. - A Skull
6. What begins with an “e” and only contains one letter? - An envelope.
7. You must keep it after giving it. - Your word
8. I cover cities and destroy mountains, I make men blind, yet help them see. - Sand
9. Of no use to one, yet absolute bliss to two. The small boy gets it for nothing. The young man has to lie for it. The old man has to buy it. - A Kiss
10. I weaken all men for hours each day. I show you strange visions while you are away. I take you by night, by day take you back, None suffer to have me, but do from my lack. - Sleep

List of Trivia:

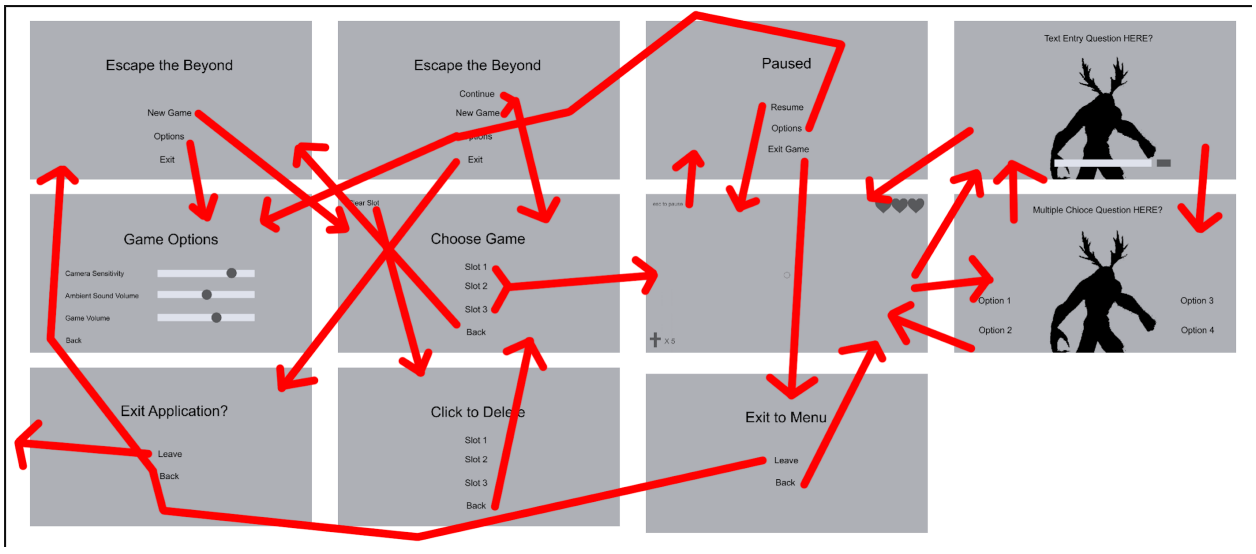
1. What’s the name of the entity that can be summoned by saying their name three times while looking in a mirror? - Bloody Mary
2. What entity was seen near the Silver Bridge a few weeks after it’s collapse? - The Mothman
3. What is the name that you do not want a ouija board to spell out 12 times? - Zozo
4. What takes the children away in the Russian lullaby Bayu Bayushki Bayu? - Wolves
5. “That is not dead which can eternal lie, And with strange aeons, even death may die.” - H.P. Lovecraft
6. Which creature is not an Outer God? - Cthulhu
7. Which of the Outer Gods walks among us in disguise? - Nyarlathotep
8. What is the name of the Book of the Dead? - Necronomicon
9. Who is the Hell Priest in the Hellraiser films? - Pinhead

10. What is the real name of the person, whose soul is inside Chucky from the Child's Play movies? - Charles Lee Ray
11. What is the name of the antagonist in Friday the 13th? - Pamela Voorhees
12. What is the vampire's name in the German film Nosferatu? - Count Orlok

List of Questions:

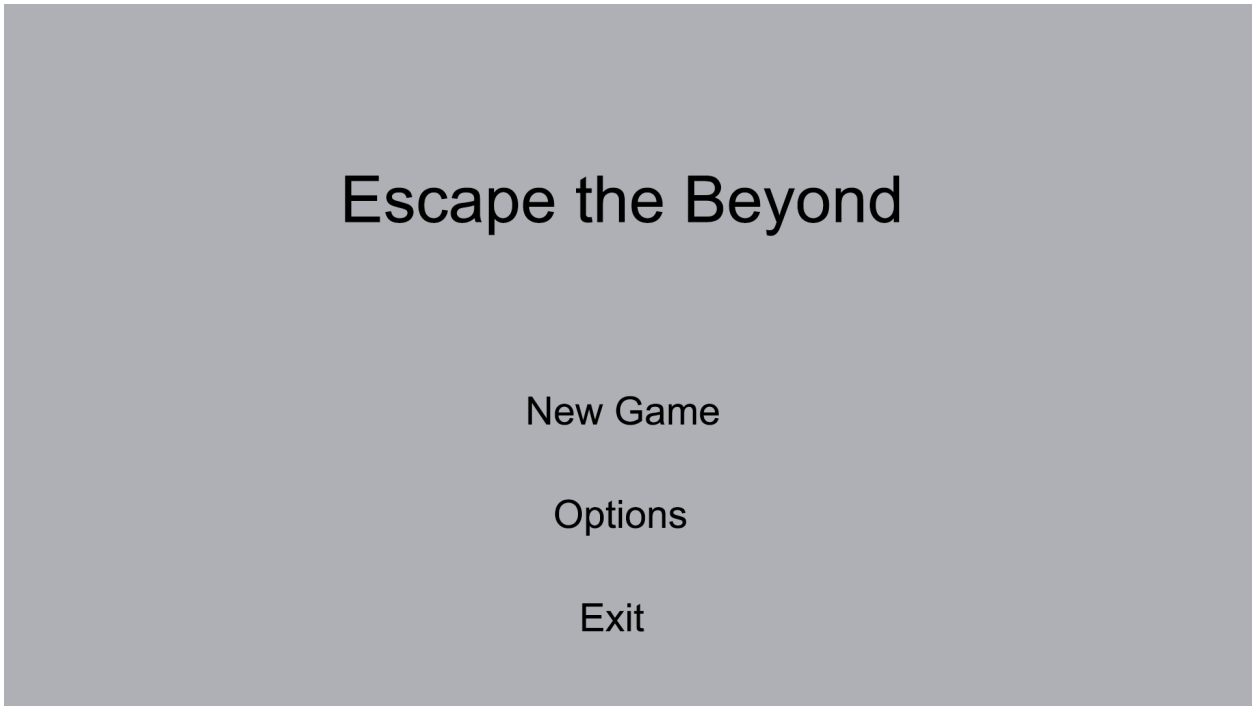
1. Would you like to die?
2. Have you done something you regret?
3. Are you a murderer?
4. Where are we?
5. Tell me a truth, I'll bite off your head, or Tell me a lie, and your guts I will shred. - You are going to shred my guts.

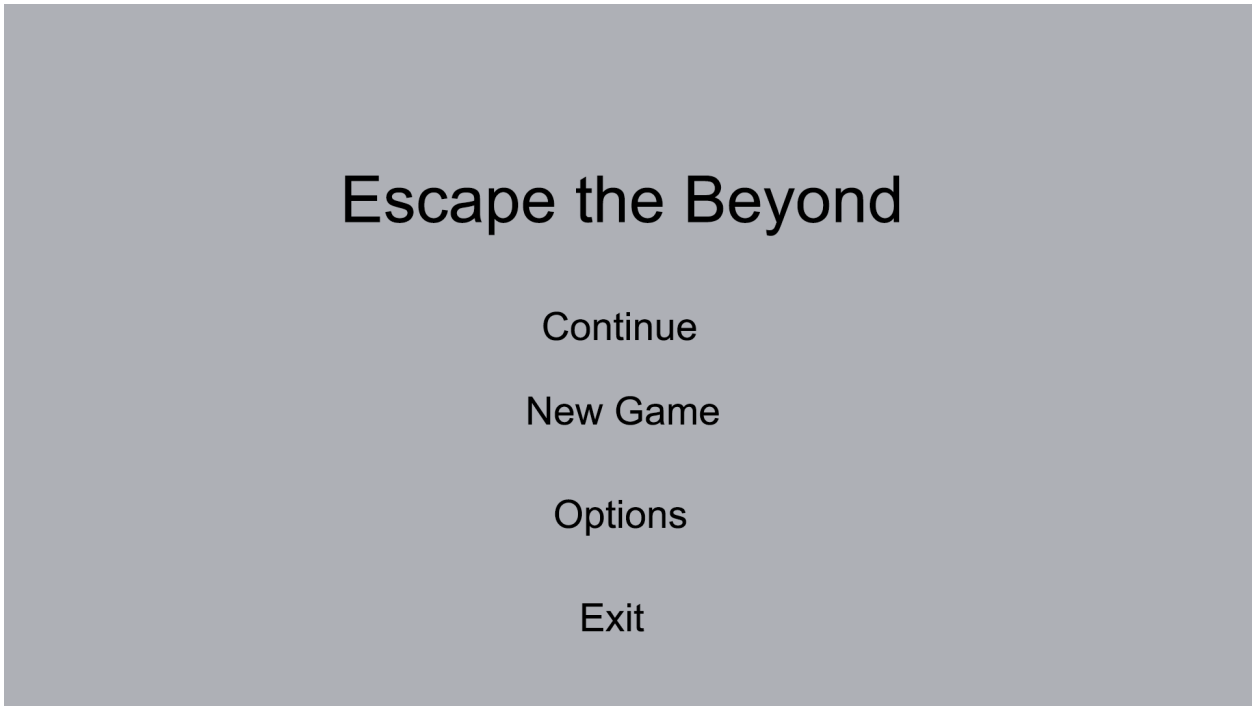
Sitemap



In the main menu you will have the option to start a new game, or if a previous game exists, it will let you decide which saved data slot to choose. The game will have an autosave feature each time you pass a level. You will have the option to delete saved data slots, or go back to the main menu from the Choose Game menu. There will be a way to get to the Game Options menu from the main menu and the pause menu. Here you will be able to control your camera sensitivity and volume options. If you try to exit the application or the game a confirm prompt menu will help you confirm it. The in-game GUI window can be changed by clicking the esc key to get into the pause menu and view the other options from there. Once you get to the third puzzle in the game, you will enter a room and click to interact with the demon in the game of questions and answers. This will be a gui based interactive puzzle that will test your knowledge on trivia and riddles. Above is the Sitemap showing how you will navigate through all the wireframes in Escape the Beyond and will help you understand how the elements within them will function. Below is a larger image of the wireframes to help you get an idea of how the UI's design will look.

Interactive UI and Wireframes





Clear Slot

Choose Game

Slot 1

Slot 2

Slot 3

Back

Click to Delete

Slot 1

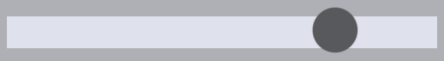
Slot 2

Slot 3

Back

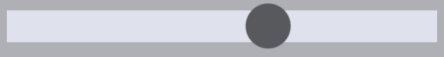
Game Options

Camera Sensitivity



Ambient Sound Volume

Game Volume

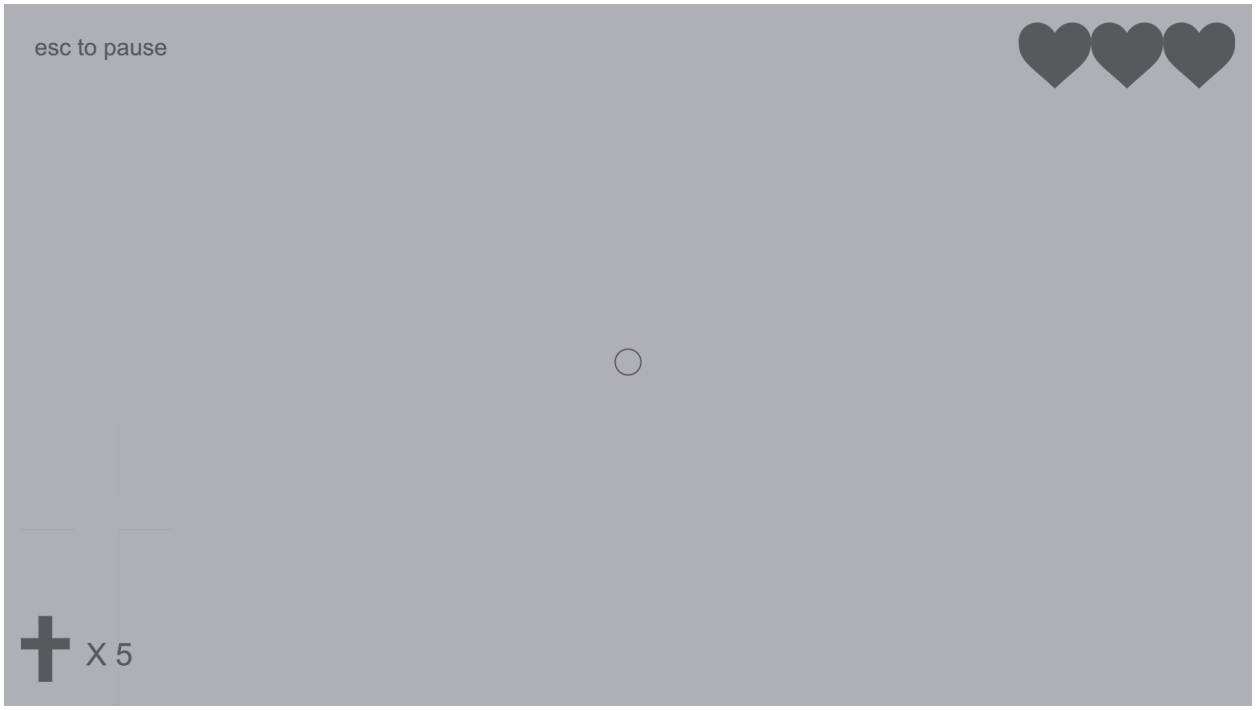


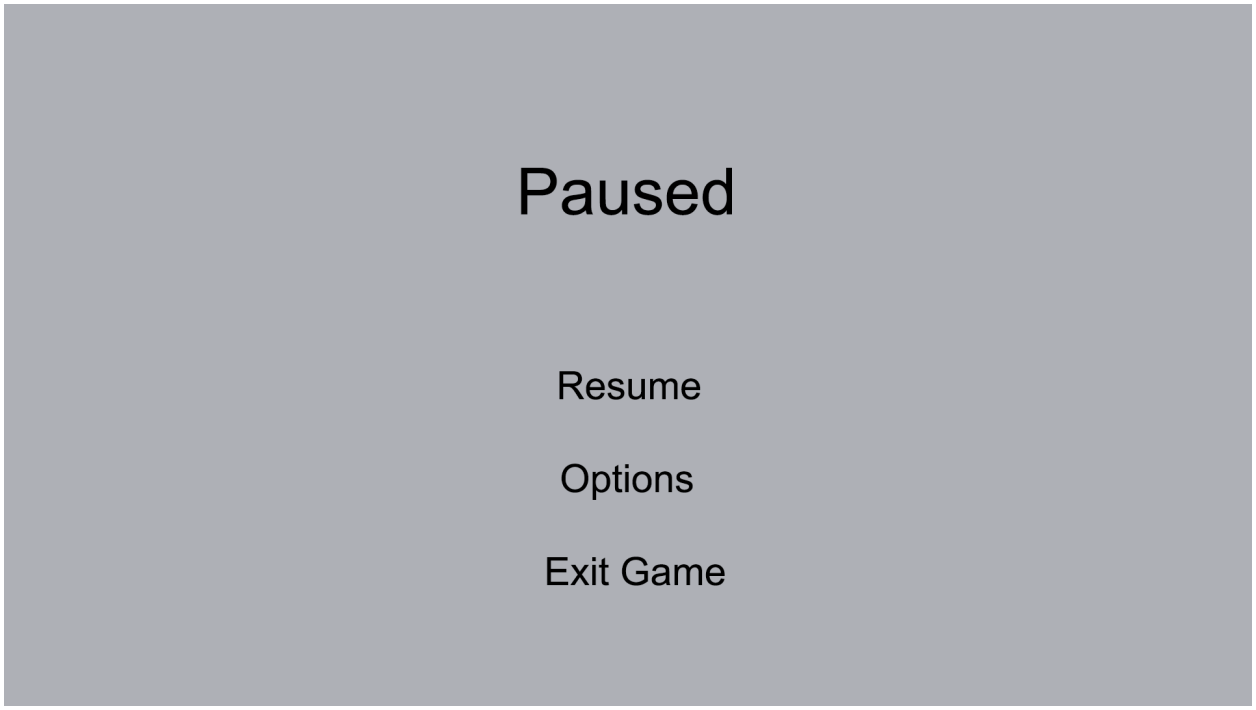
Back

Exit Application?

Leave

Back


esc to pause
X 5


Paused
Resume
Options
Exit Game

Exit to Menu

Leave

Back

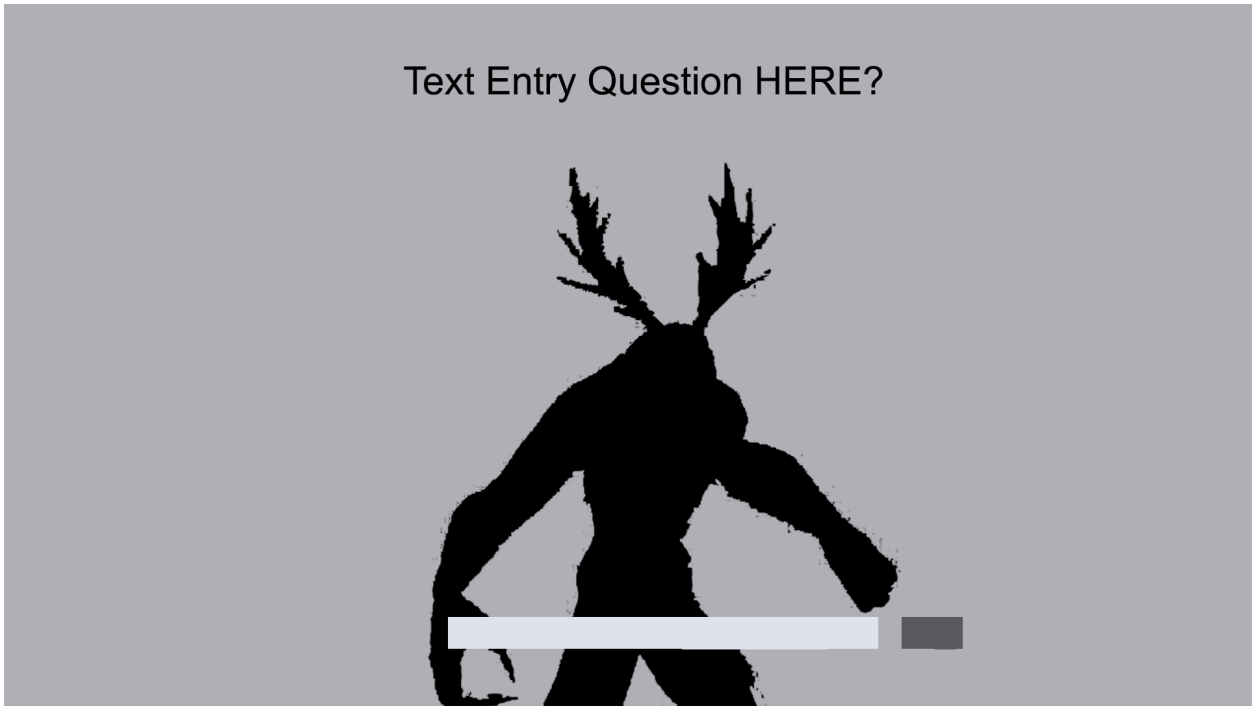
Multiple Chioce Question HERE?

Option 1

Option 2

Option 3

Option 4



Style Guide

Theme

The theme is dark and creepy. The environment will be dimly lit and represented on the horror theme of the game genre.

Tone

Realistic and monstrous. The environment will give semi-realistic vibes from lighting and asset quality. Also the monsters will have a realistic look to them besides the fact that they are monsters themself. They will have exaggerated features that look like they are disformed humanoid figures to give a creepy and familiar style to them.

Messages

Approach future technology with excitement, but also be wary of the consequences. Don't get lost in a bottle your entire life. Face your mistakes head-on. Don't fear the darkness, fear what's in it.

Colors

Red lights baked into the scene illuminate the area for the player. Besides that the player's sight is restricted by a black void around 4-5 meters in front of them resembling complete darkness beyond.

Style

Realistic, eerie, creepy, scary, disturbing, and graphic.

Staging

First person view and movement in a claustrophobic, dark, and creepy environment.

Showcase of Purchased Assets

Interior Art (Created by Yasuka Taira):

AI Art created by Nikita Oleinik (Main AI (The Ripper), Sub AI (Zombie Mutant), & Questions and Answers Demon):

Moodboards


matches

Deliverable List

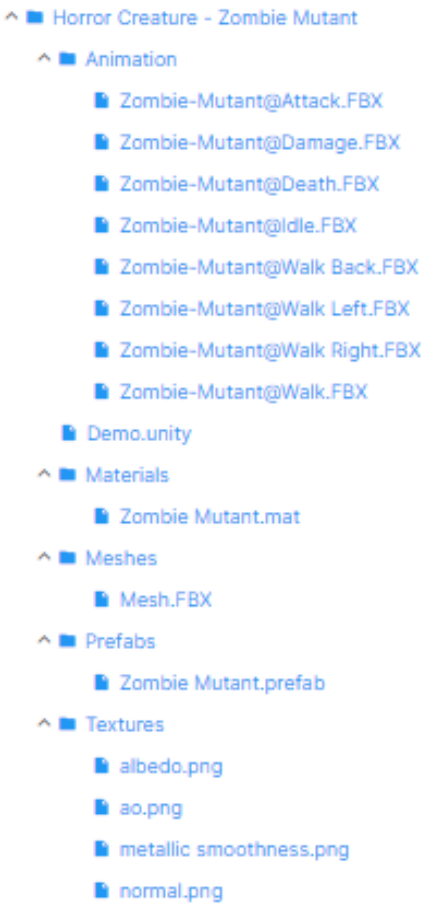
For this project I will be delivering a First-Person Horror video game that includes

- Unique and challenging puzzles
- Smart AI that interacts with the player and environment
- A short and interesting story intertwined
- Unity Project Files and Unity Build
- Gameplay walkthrough video by playtester

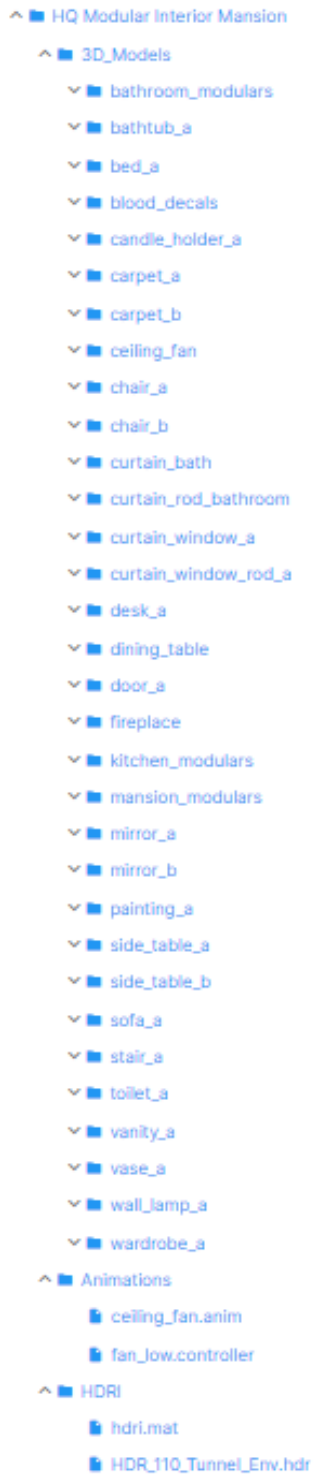
Asset List

Demon 1 - The Ripper Assets

Demon 2 - Mutant Zombie Assets



Environmental Assets



Audio

1. Ambient soundtracks ~ 2 or 3
2. Story audio hints
    a. ~ 4-5 in a simulation hints
    b. ~ 4-5 Deever's hit-and-run hints
3. AI sounds
    a. Patrolling X 2
    b. Chasing X 2
    c. Screaming X 2
    d. Attacking Player (jumpscare screams) X 3
    e. Attacking Objects X 2
4. Environmental sounds
    a. Opening Doors
    b. Closing Doors
    c. Collecting items
    d. Footsteps
    e. Jumping
    f. Additional eeries background sounds ~ 5-10
5. UI Sounds
    a. Button Clicks
    b. Starting Game
    c. Exiting Game
6. Protagonist dialogue

a. ~ 4-5 clips (progression through story)

Addendums

Background Information

Mr. Deever drove home drunk from the bar one night killing Anthony Burns and putting Alex Brown in a coma for multiple months after. The hit-and-run was never solved, and Mr. Deever barely remembers the events happening because he was completely blacked-out over high alcohol consumption.

SocialChips's simulation app is in beta testing and only taking volunteers because of the potential dangers of the technology being hooked-up to your brain. Because of Deever's poor lifestyle and choices stemming from his alcoholism, he is short on cash almost all the time and seeks this beta test as easy, quick money.

SocialChips's simulation app is designed to sync nostalgic memories with advertisements and simulations to bring beneficial profits to the company. Unknowing of Deever's subconscious trauma and guilt from the hit-and-run, SocialChips's simulation glitches and actually sends Mr. Deever to his own Hell based on all his fears and guilt.

Personas

Daniel D. Vito

Dan is an author and a gamer. Dan loves playing the Resdental Evil and Silent Hill games and has been doing so for years. Although gaming is a hobby for him, his passion lies in writing sci-fi crime novels. He gets inspiration from H.P. Lovecraft and Stephen King.

Charactersistics

Dan is a writer
Dan is a gamer

Interests

Videogames
Writing
Plays

Tasks

Create a popular novel series
Gather inspiration

Objectives, Motivations, Needs

Get scared for fun and inspiration
Get an addreline rush for fun

Scenarios

Dan has writers block. So he takes a break to play some videogames. He sees there is a new videogame called Escape the Beyond. He feels he might gain some inspiration from playing this game.

Travis Scott

Travis Scott is a 29 year old man. Travis Scot s intersted in skate-boarding and enjoys hiking. He likes to go on adventures and one time hiked part of the Appliation Trail. He needs and loves to discover new things. Travis grew up watching hor-ror movies such as Friday the 13th and Nightmare on Elm Street.

Charactersistics

Travis is an adventurer
Travis likes pudding

Interests

Travis enjoys skateboarding, and adventuring.

Tasks

Hike the whole Application Trail.

Objectives, Motivations, Needs

Travel the world
Releive stress
Get an addreline rush for fun

Scenarios

Travis hears of a horror game that has a good story to it, and Travis has been craving to get that addrenline rush you get from getting chased in a horror game.

Inspiration Reference

Pitch Document

Executive Summary

Escape the Beyond is a First-Person Horror video game that will make you solve the mystery of why you are in the afterlife. You will need to solve puzzles, collect items, and avoid demonic entities in order to answer the questions of why you are in this Hell. Solving puzzles that break the 4th wall of the game, collecting relic pieces, and solving riddles will help you gain the knowledge and items you need to open the door to the basement which seems to be the only way out. This game was made for horror-fans and adrenaline junkies who love a good scare.

Mission Statement

What Escape the Beyond will bring to the table is a terrifying game with an interesting story and unique puzzles throughout. The AI will be a smart enemy that will be able interact with the player and environment, making the game's progression more horrifying and challenging each time you progress. Also the puzzles and gameplay will intertwine with the story, helping you solve the mystery of how you got to this nightmare.

Objectives

- Have eerie audio tracks that make you feel immersed in the environment and story
- Have good character controls that make the gameplay feel fluid and player-friendly
- Have a smart AI that can interact well with the player and the environment

- Have UI that helps guide the player through the story and display the information the player needs to progress
- Have the ability for multiple save data slots and bad luck to any players that try to cheat by changing values.

Major Needs

- Immersive sounds that scare the player and mess with their minds
- Excitingly terrifying gameplay when interacting, running, & hiding from AI
- UI that is good looking and fits in with a horror game, and scales well with all resolutions
- Save data files that work reliably, so that player's progress is saved for them
- A story that is interesting and intertwined well enough with the game, so that it makes sense

Constraints

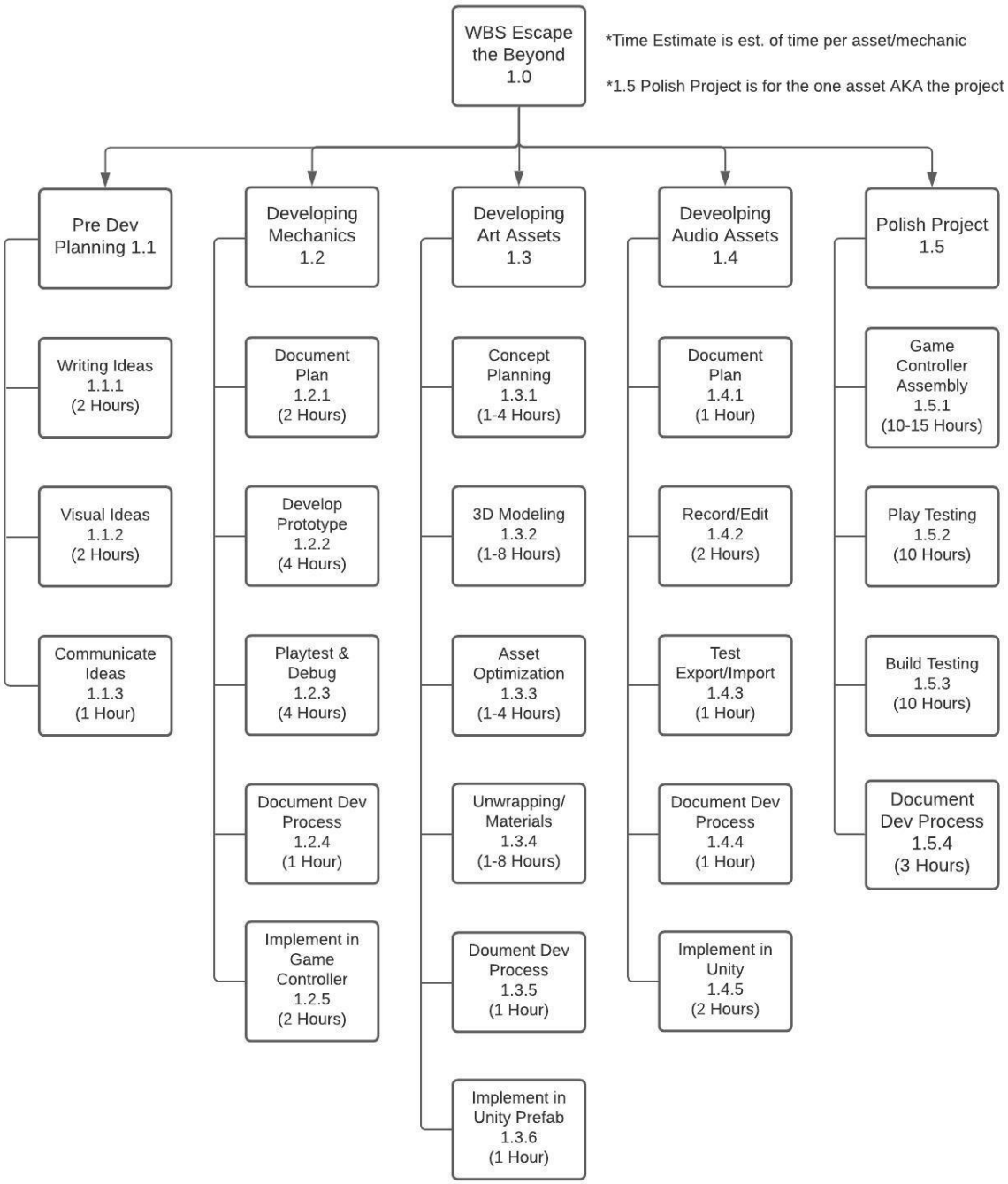
Time - Starting Capstone I will have the level layed out already and the AI already functional. But I do work 40 hours a week.

Communication - Discord and school email available.

Software - Unity Game Engine, Adobe Audition, & FL Studio.

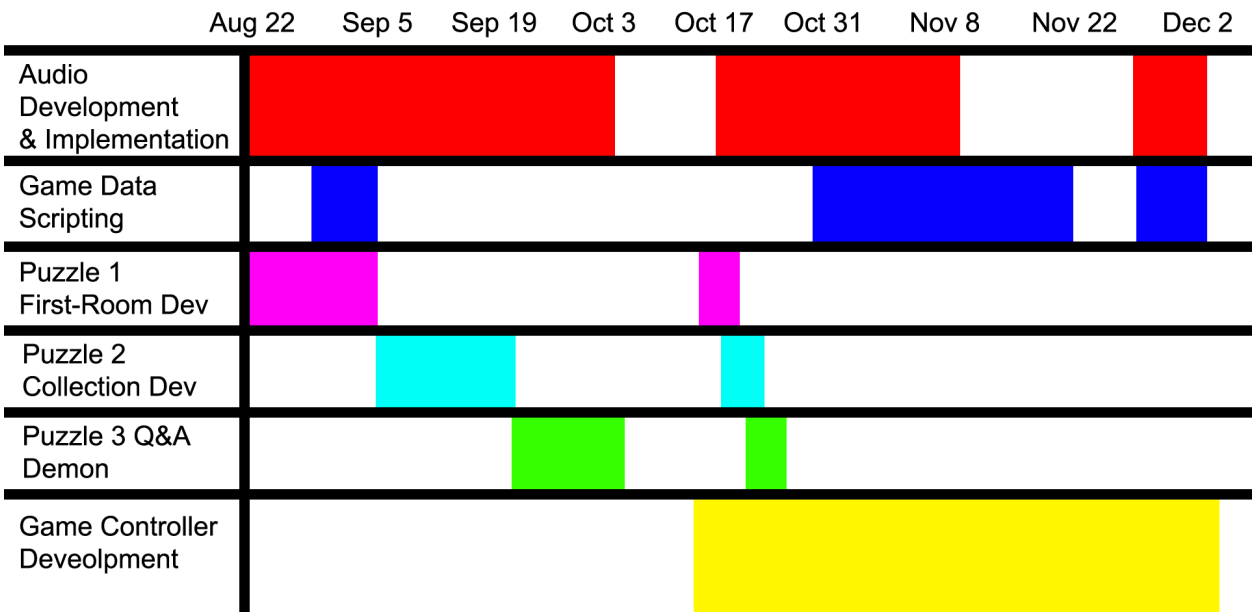
Legal - I am using most assets from the Unity Asset Store. Some paid for, some for free. I probably will only be able to use this project for educational purposes.

Work Breakdown



Schedule

Gantt Chart



The gantt chart above does not include my Summer schedule leading up to the Capstone semester which will include audio development, a character controller, and work getting a head start on the development of the puzzles. I did not include the Summer to help set a better idea of how I can get ahead of this gantt chart. The chart above is a worst-case scenario on being in crunch time towards the end of the semester. Before the semester begins, I will have the AI completely completed, which is arguably the toughest and most time-consuming task of this capstone. The AI will show off my skills of creating smart AI, and the game surrounding it will help wrap this project up into an amazing portfolio piece that showcases my

skills in Game Development. I will have the help from Caleb Moody, an alumni of DAGD, who is skilled in audio development, and has programming experience in Unity too, if I am in need of assistance. Together this game can easily be developed by the end of this year.

Detailed Schedule

Below is the hour estimate of the start of the semester and where we will be with audio and programming. This of course is subject to change, for sometimes certain tasks are easier than expected, or some tasks are harder to complete than expected. This was made just to keep a good vision on where we should be at what time in this project. This also goes well with the gantt chart and gets more specifics and estimates on time to complete to help prepare us for rough weeks, or get ahead on light weeks.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16
Audio Assets	Ambient Clips X 3	Ambient Clips X 3 & Ambient soundtrack X 1	hit-and-run hint Clips X 3 & Ambient soundtrack X 1	simulation hint Clips X 3 & door Clips x 2	hit-and-run hint Clips X 2 & simulation hint Clips X 2	AI Patrol Clips X 2 & Collecting Items Clip X 1	AI Chasing Clips X 2 & AI Screaming Clips X 2	AI Attaking Player X 3 & AI Attacking Objects X 2	Footstep Clips X 3 & Jumping Clip X 1	GUI Sounds X 3	Protagonist Dialogue X 3	Protagonist Dialogue X 3	Protagonist Dialogue X 3			
CodingTasks	Puzzle 1 Prototyping + Implementing	Puzzle 1 Implementing + Bug Testing	Puzzle 2 Prototyping & Game Data Scripting	Puzzle 2 Implementing + Bug Testing	Puzzle 3 Prototyping + Implementation	Puzzle 3 Implementation + Bug Testing	Audio Implementation	Game Controller Dev - Scene Linking	Game Controller Dev - Scene Linking + Bug Testing	Game Controller Dev - Scene Linking + Audio Implementation	Game Controller Dev - Static Vars + Game Save Data	Game Controller Dev - Static Vars + Game Save Data	Game Controller Dev - Bug Testing & Play Testing	Game Controller Dev - Bug Testing & Play Testing	Play Testing & Build Testing	Play Testing & Build Testing
Audio Assets Hours	3	5	5	4	4	3	4	5	4	2	3	3	3	0	0	0
Coding Hours	15	10	5	5	15	15	5	10	10	12	15	15	10	10	10	10
Total Time for Week	18	15	10	9	19	18	9	15	14	14	18	18	13	10	10	10
Total Time (Hours)	**220**															

Roadmap

Using the gantt chart above I can split my project this semester into multiple sprints, to help keep myself paced to completing this project.

Sprint 1 Sep 5

Goal is to complete the first puzzle of the game and have it functional. Also should have more audio files available to use in the game. The game data scripts will help tie in to the first

puzzle by messing with files on the user's PC or clipboard text. This puzzle will have to track the save data file to see how many times the user has started the game and then the code to open the door into the main game will be saved in the user's clipboard or in a file in the persistent path on the user's PC. Hints will be given to assist the user through this part of the game.

Sprint 2 Sep 19

Goal is to complete the second puzzle of the game and have it functional. More audio files will be developed and be properly implemented into the game through an audio controller. Puzzle 2 should be simple, allowing AI to spawn depending on how many items you create and building the functionality on where those items spawn and a formula to randomize their spawn locations. The audio controller will be heavily utilized in this part of the game and this part of the game will have the most chase-and-hide gameplay in it. With the AI already being complete, this will really open up more time to making this puzzle work great and it will be the easiest part of this game to develop.

Sprint 3 Oct 3

At this stage of the game most or all of the audio files should be created and almost all implemented. The third puzzle will be developed which includes a GUI interface and a question randomization when playing the game of Questions and Answers with the Demon. This will include a lot of troubleshooting and may take more time than anticipated, but I have full confidence that I can get this puzzle functioning on time.

Sprint 4 Oct 17 & Oct 31

This will be a 4 week sprint that will give me time to start the game controller which will help transition the puzzles in an actual flow from scene to scene and start to stitch together the game's functionality. This will be a part of troubleshooting and playtesting to refine any puzzles that have glitches too. Once the game starts to come together this is where Game save data script will be built more in-depthly, so that you can load games and the files will tell unity which part of the game they are on. This will be split into how many puzzles you beat, so when you reload the game or die in-game; it will load back up at a checkpoint.

Sprint 5 Nov 8th, 22nd and Dec 2

In this sprint it will be essentially finishing up the project. Making sure the game controller and audio controller work well with progress and gameplay, make sure there are no glitches, and polish things that I, or test users do not enjoy. If I am ahead of schedule this will be the best time to refine the game and make it amazing, but if I am behind it will help me catch up and finish the game in a less comfortable state. I also assume that capstone class will be done the second week of December, so I am aiming to be finished December 2nd to also give myself more time to polish off the game itself.

Risk Assessment and Mitigation Plan

Assessment

		Serverity			
		Lower	**Low**	**High**	**Higher**
Probability	**Lower**	I lose file locations in my folders	I accidently delete a file	Software errors destroy my project	Hardware errors keep me from working
	Low	I forget to work on project	Gltiches implementing art in game	Health problems keep me from working	I die
	High	Forget how to do certain things in Engine	Depression	Fear of failure and anxiety	COVID-19 ends the world
	Higher	I get a common cold	Procrastination	Files corrupt	Don't keep backups

Mitigation

Risk	Severity	Mitigation Plan
Don't Keep Backups	Higher	I own a 1 TB external harddrive where I will keep art assets and other important documentation files etc.
Files Corrupt	High	In addition to keeping everthing on an external harddrive, my main Unity file will also be stored with Github. This makes it cloud data and I can access it through any computer.
Procrastination	Low	If I get offstrack I just havr to remind myself that I paid around $1,000 for the class and have to work for my degree
I get sick	Lower	If I get sick I just have to get rest and recover and be sure to manage my time after I recover to make-up for work I wasn't able to complete

Communication Plan

Communication Schedule (Weekly Schedule)

Depending on the semester schedule one day for Capstone Class.

Have another day for playtesting and critiquing with other students.

TBD

Will be in a discord server for quick communication between my partner and I in a #dev chatroom.

Contact List

Email: versawe@ferris.edu

Discord: Erkman101#7146

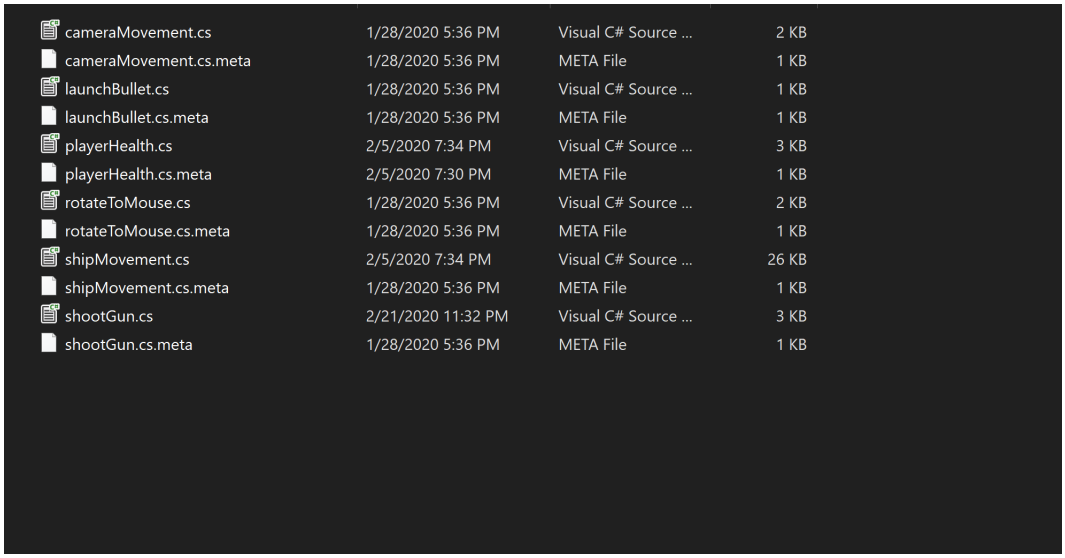
Emergency Contact

Mother of student:

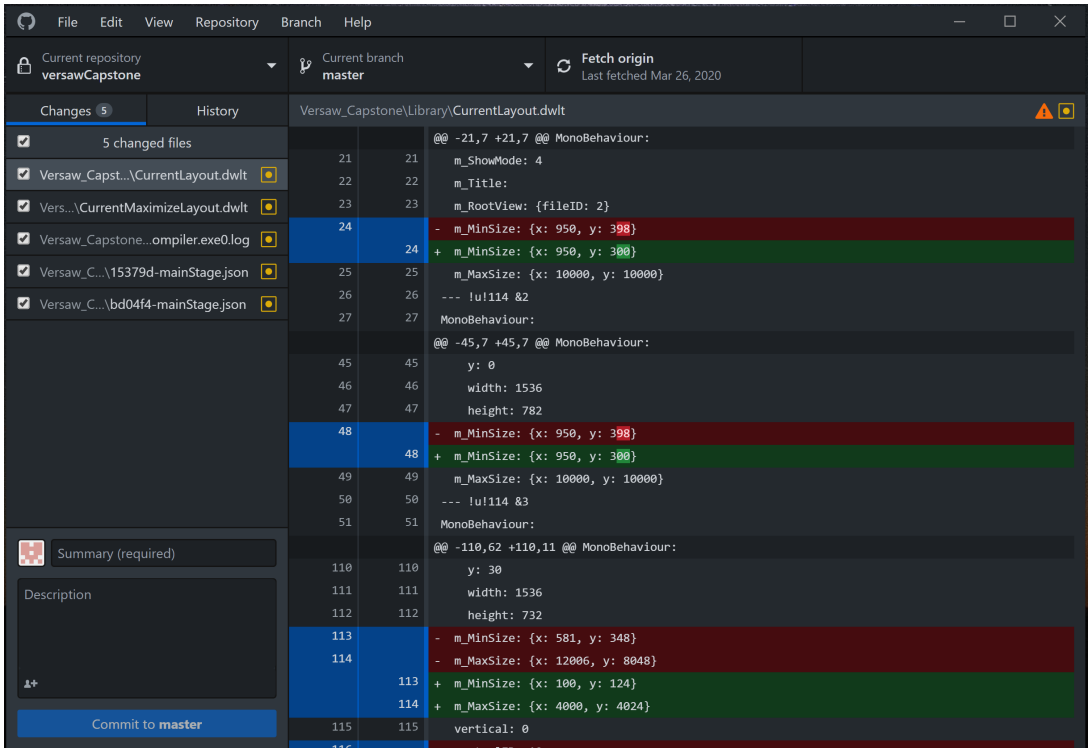
Email: tversaw44@msn.com

File Management

The below images are examples from a past project and will be my approach for this project on how my naming conventions on files will work. Camel case and specific wording is how the files will be named. Example for a script would be shipMovement.cs That way I know exactly what's in that script and have it look consistent and nice.



In the image above it shows a similar file convention but for C# scripts. Camel case is the capilasation of every other word and it is essential for clean file naming convention.



Also, above is an image of my Github desktop app, which will save my data onto their website, letting me push and pull into my repository from any computer with internet connection. This will make it easy to use on my desktop, my laptop, and the lab computers on campus. Essentially being able to work on my project anywhere.

Specified Software

- Unity 2019
- Adobe Audition
- FL Studio
- Photoshop (maybe)

Deliverable List

- An executable file formatted for Windows 10

- Also a Unity file for a look at actual development
- A walkthrough video of game played by a playtester

Credits

Story & Idea - Eric Versaw

Development - Eric Versaw(Lead) & Caleb Moody (DAGD Alumni)

Environmental Art - Yasuka Taira from Chilla's Art LLC

Character Art - Nikita Oleinik

Audio - Caleb Moody(Lead) & Eric Versaw