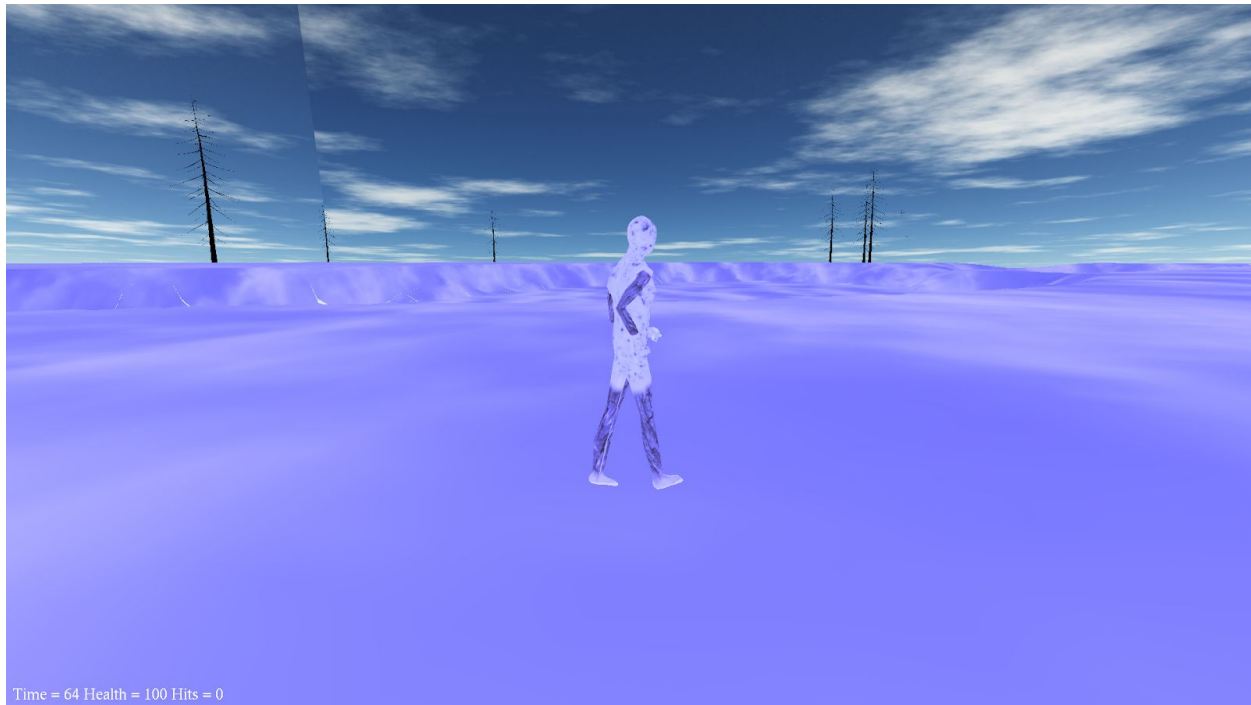# Budget Snowball Figh

we couldn't afford the last t

Created by
Matthew Torres and Chris Dong

## Game Image



Time = 64 Health = 100 Hits = 0

## How to compile and run the game

● For Single player mode, if the computer's pathing is setup correctly, all a player needs to do is run the clientRun.bat file.

● For multiplayer mode, the user needs to find out the ip address for their computer and modify the ip address within the clientRun.bat file. Once that is corrected, the user needs to run the serverRun.bat and clientRun.bat file.

## Special device requirements

● The player needs a gamepad in order to perform the following:
   ○ Player Movement
   ○ Throwing Ball
   ○ Orbit Camera
● The player needs a keyboard in order to perform the following:
   ○ Run the script that turns our second light on/off.

## How to play

- The goal of the game is to beat your opponent in a snowball fight by throwing snowballs at them.
- Getting hit by a snowball will reduce your life and already increase the "hit" count of the attacker.
- If you hit one of the trees on the map, the attacker loses health.

## Game Controls

1. Avatar Movement
   a. Left control stick for all directional movement and forward/backward movement.
2. Camera controls:
   a. Right control stick
      i. Move left and right to rotate the camera
      ii. Move forward and backwards to zoom in and out the camera
3. Throwing Ball
   a. Button 3 or Y button to throw the snowball

## Scripting uses

- The main use for our script was to give the player the ability to change the lighting

## Game Summary

- A competitive action game that takes place in a snowy forest where the trees have come to life to have a snowball fight. It's a 3 dimensional game 3rd person that takes place on a snowy ground plane surrounded by trees. Throw snowballs at your opponent to see who is the alpha treeman!

## Requirements

- *External models*
  - The avatar, tree and snowball are all external models
- *Networking*
  - Two players on separate computers can connect to each other
- *Scripting*
  - You can change the lighting through the space bar and that's performed through scripting
- Skybox and Terrain
  - There is a skybox for a sunny day and terrain for a snowy field
- *Lighting*
  - We used a point and directional light for the user to switch to
- *3D sound*
  - The game has excellent background music and a sound for throwing
- *HUD*
  - The hud tells the elapsed time, player health, and player score.
- *Hierarchical SceneGraph*
  - Trees are all created through a SceneArray and are all controlled by the same scale controller.
  - GhostAvatars are created and are also controlled by the same scale controller.
  - The snowball is a child node of the Avatar but is moved up and to the left in order to make the ball fire from the character's hand rather than crotch.They also utilize the avatar's localRotation.
- *Animations*
  - The avatar has a running animation and a throwing animation
- *NPCs*
  - Five flying dolphin NPCs are instantiated in the beginning of the game where the Network Server is running in the background.
- *Physics*
  - The ball, once thrown, goes under the effect of gravity as it flies through the air at a value of -5.0f.

## Incomplete Requirements

- No 3D sound
- No AI decision making
- No collision detection

## Additional techniques
- No other known techniques were used other than what we learned from the lecture slides and class

## Team member contributions
- Torres
  - Skybox and Terrain
  - Animation
  - Model Creation
- Dong
  - Network Multiplayer
  - Scripting
  - Lights
  - Sound
  - NPC Creation
  - Physics
  - Model Creation

## List of Models Created
- Avatar Model/GhostAvatar Model
- Tree Model

## Permissions
- Bark.jpg, snow.jpg and snowygrass.jpg are assets from:[www.textures.com/](www.textures.com/)
- The throwing sound that we used in our program is from: [http://soundbible.com/1622-Spear-Throw.html](http://soundbible.com/1622-Spear-Throw.html)
- The background music is taken from a parody video created by youtuber "fartwad": [https://www.youtube.com/watch?v=2cjbSgy3vSw](https://www.youtube.com/watch?v=2cjbSgy3vSw).
  - The music has also been used in a ton of other videos across youtube, we can provide evidence if needed. Here is the disclaimer which he has used in his video description: "DISCLAIMER. We do not claim any rights of the uploaded songs - all rights go to their respective creator(s). This channel is meant to be a personal collection of parody videos intended to be shared with others for entertainment and promotional purposes only."

## Lab computers used
- We used computers Xcom and Wolfenstein to test our game in RVR 5029.