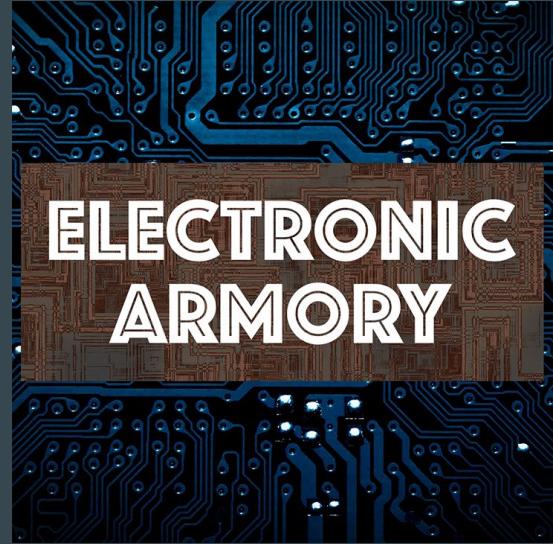


Introduction to 2D/3D Game Development

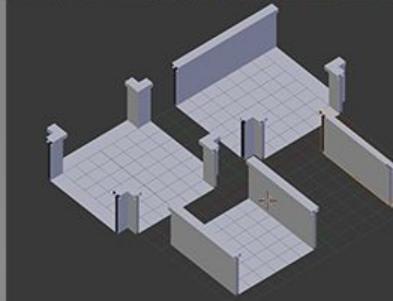
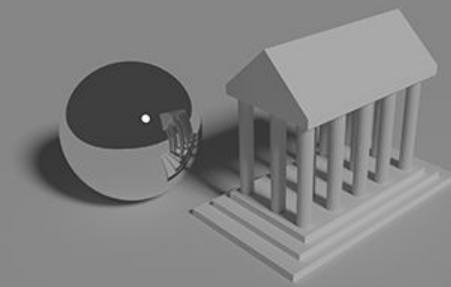
...

ElectronicArmory.com
3D Game Development Course



ELECTRONIC ARMORY

3D GAME DEVELOPMENT CLASS



```
pragica once
#include "GameFramework/Character.h"
#include "DungeonCharacter.generated.h"

UCLASS(Blueprintable)
class ADungeonCharacter : public ACharacter
{
    GENERATED_BODY()

public:
    ADungeonCharacter();

    // Called every frame.
    virtual void Tick(float DeltaSeconds) override;

    /** Returns TopDownCameraComponent subobject */
    FORCEINLINE class UCameraComponent* GetTopDownCameraComponent() const
    /** Returns CameraBoom subobject */
    FORCEINLINE class USpringArmComponent* GetCameraBoom() const { return
    /** Returns CursorToWorld subobject */
    FORCEINLINE class UDecalComponent* GetCursorToWorld() { return CursorT

    /** Returns collection sphere component */
    FORCEINLINE class USphereComponent* GetSphereComponent() const { return
```



LEARN 3D CONCEPTS
AND ANIMATION

CREATE 3D
GAME ASSETS

PROGRAM IN
C++ AND BLUEPRINTS

CONSTRUCT GAMES
IN UNREAL ENGINE

Your Instructor

- Mike or Professor Z
- Made well over \$100,000 in games
- 6 published games
- 3 currently in the works
- 3D artist
- Been making games since 1997 (Duke Nukem 3D mods)

Your Instructor

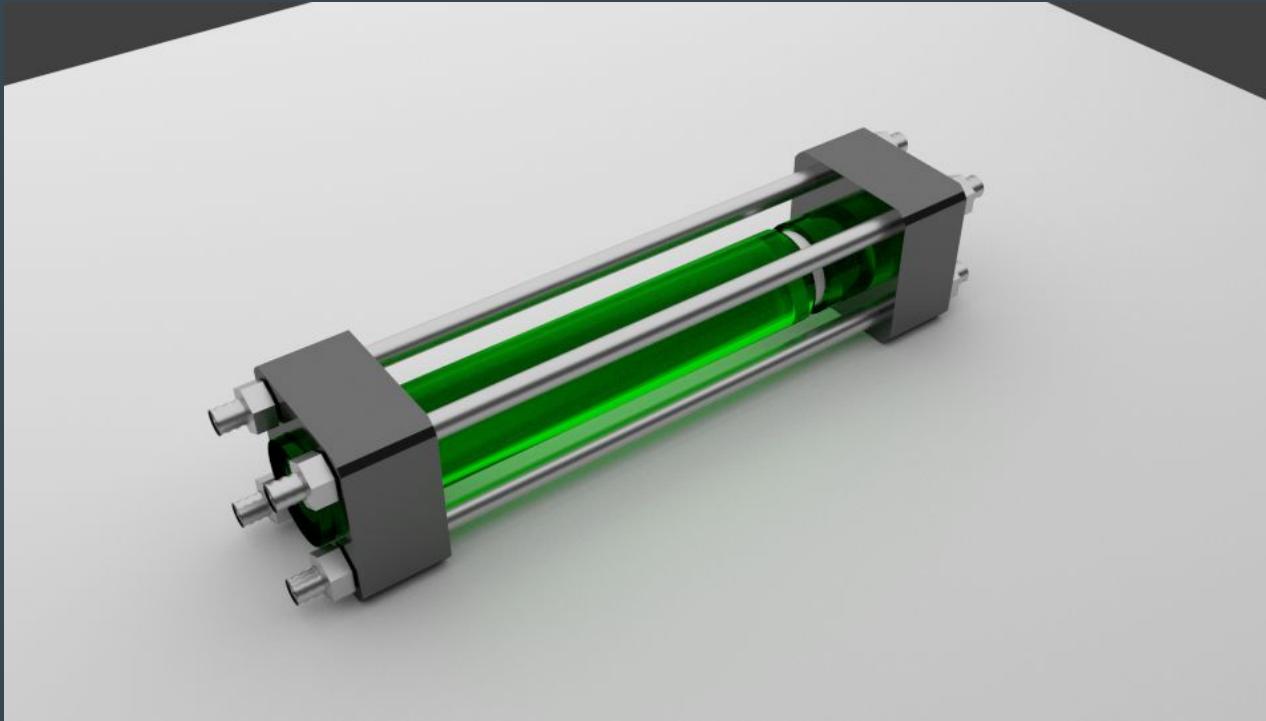
- I'm not:
 - Your typical Computer Science Instructor (ie very good)
 - Available outside of class. We'll leave plenty of class time for help and workshops
 - A AAA game developer.

My Start in 3D

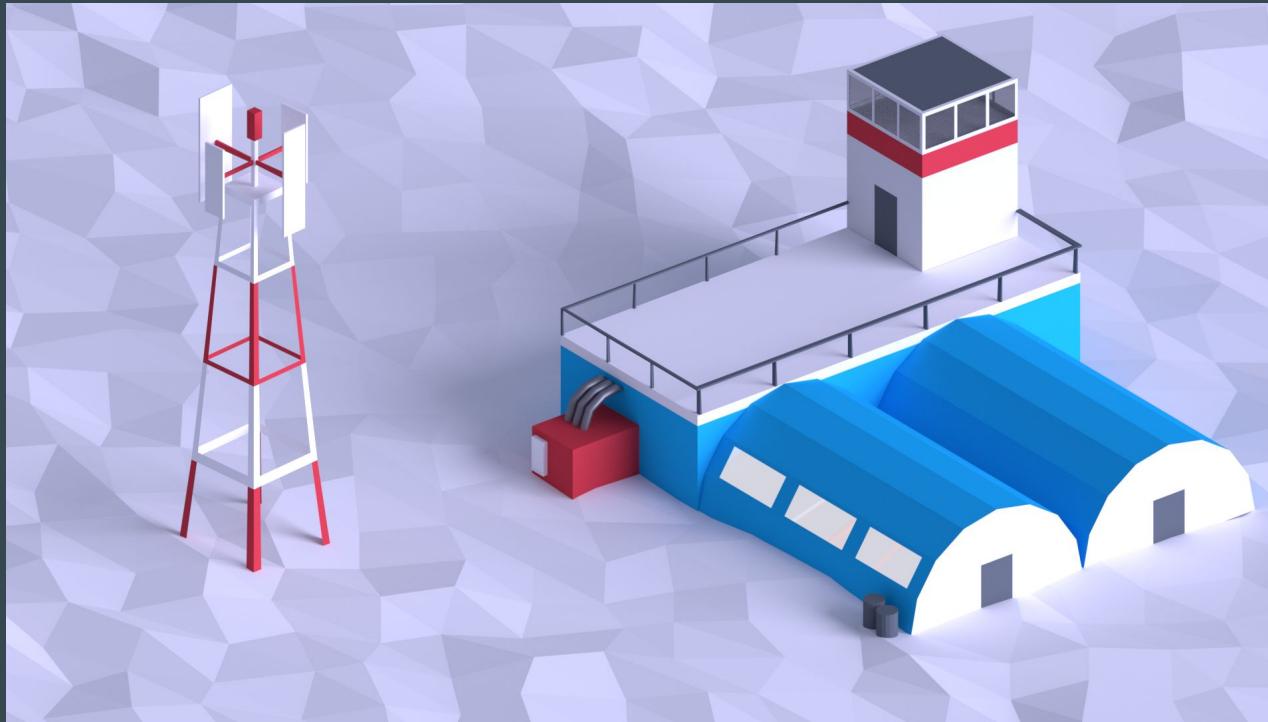
My Former Employer Was Creating Things Like This:



I Started With This



Then I Kept Going



Create Anything We Want in 3D



Some of My Games

Monopoly Express (Flash)



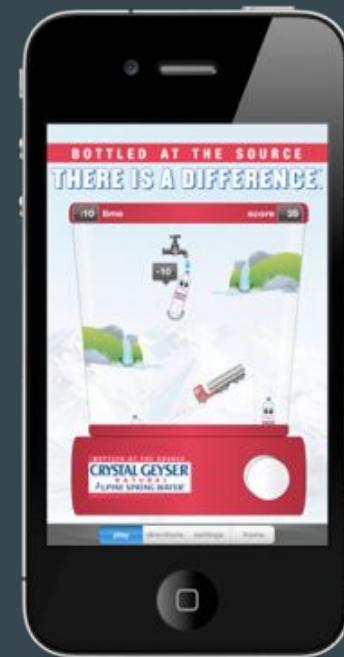
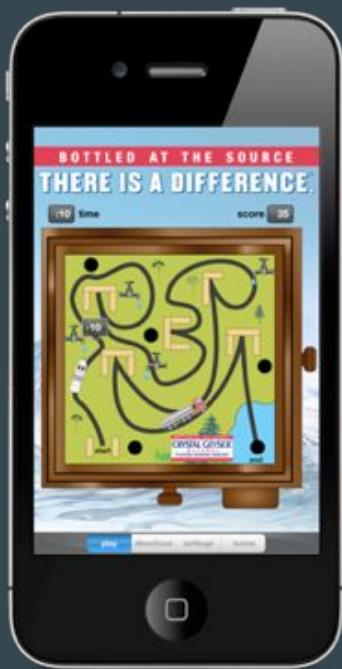
Sorry Express (Flash)



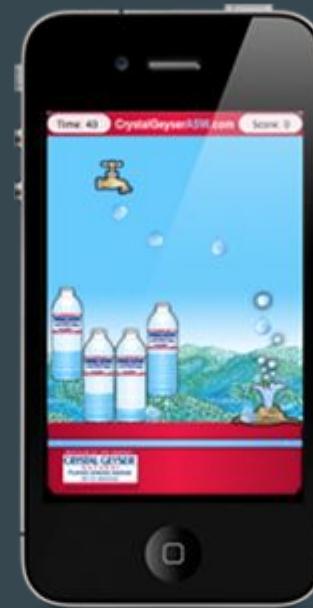
Pictureka (Flash)



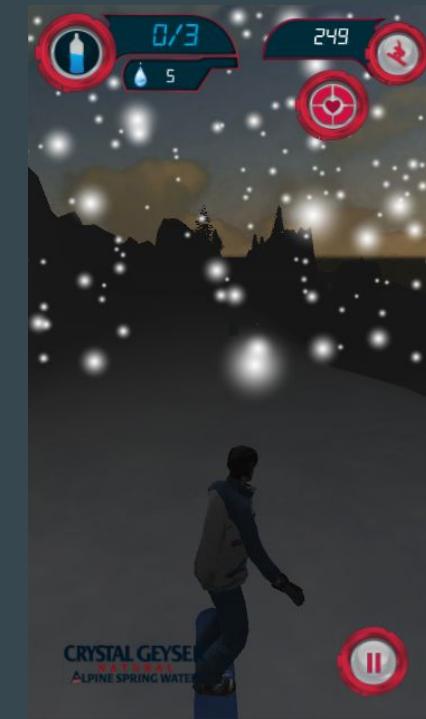
Concepts We've Pitched In the Past



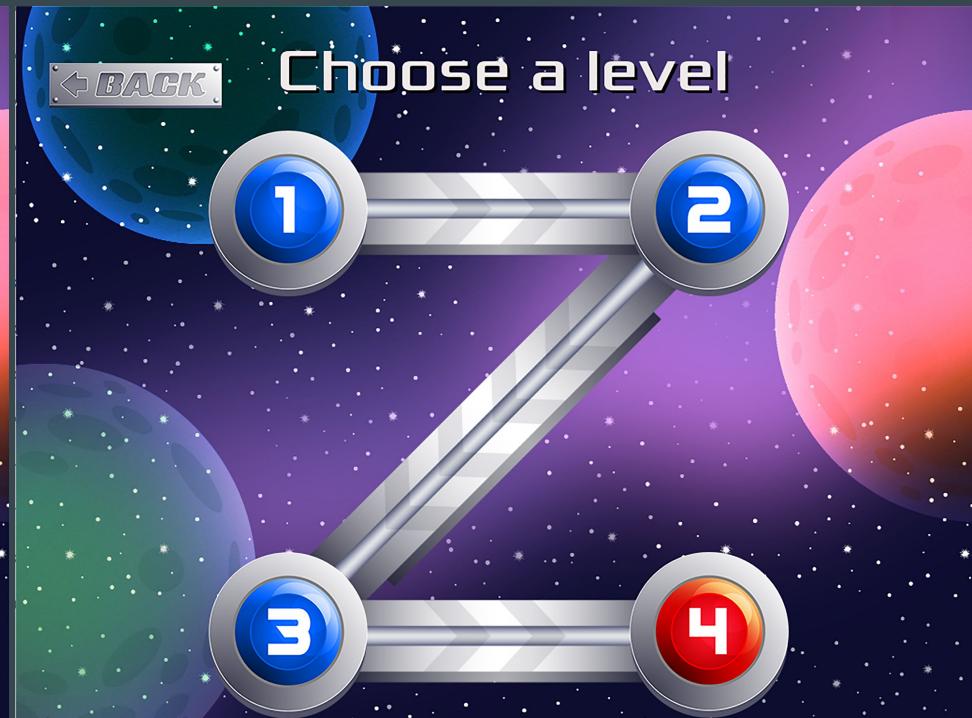
Crystal Geyser Water (Corona SDK)



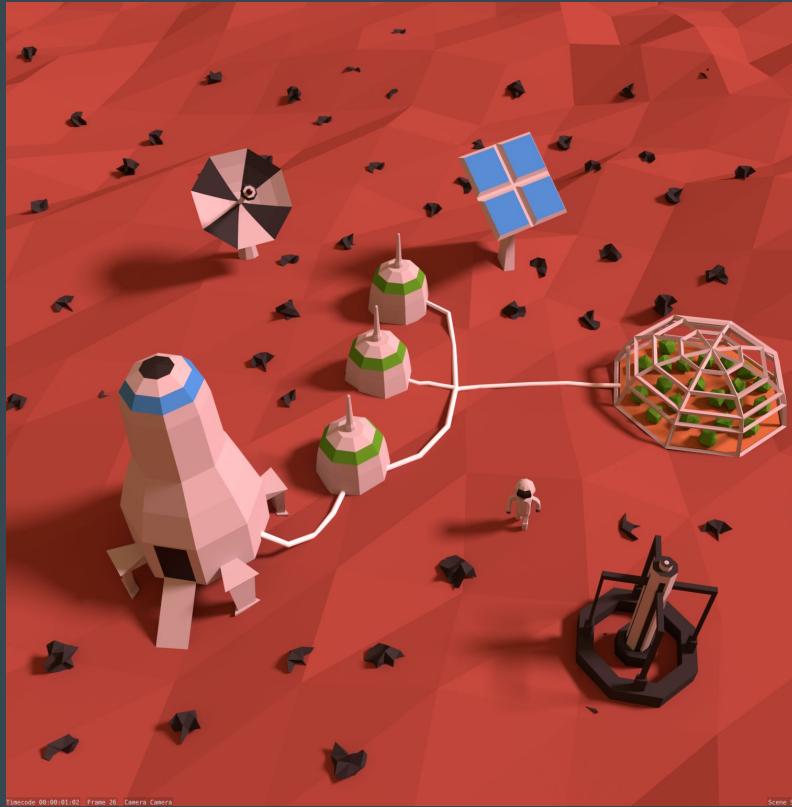
Crystal Geyser Water: Power of Nature (Unity)



Fraction Blast (Godot)



Mars Survivor (WIP, Unreal Engine)

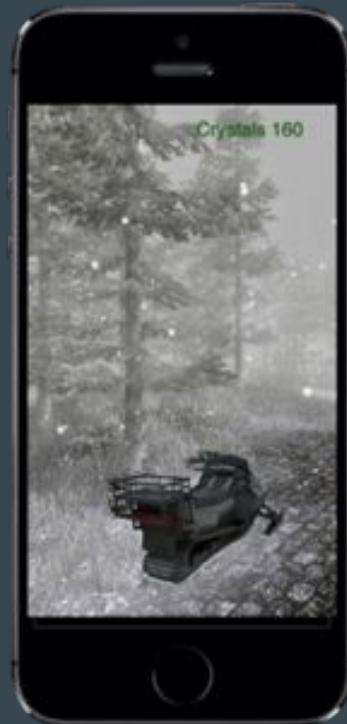
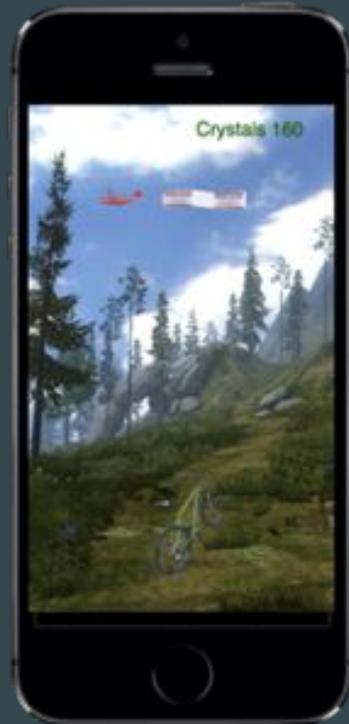


Sports Math Game (Godot)

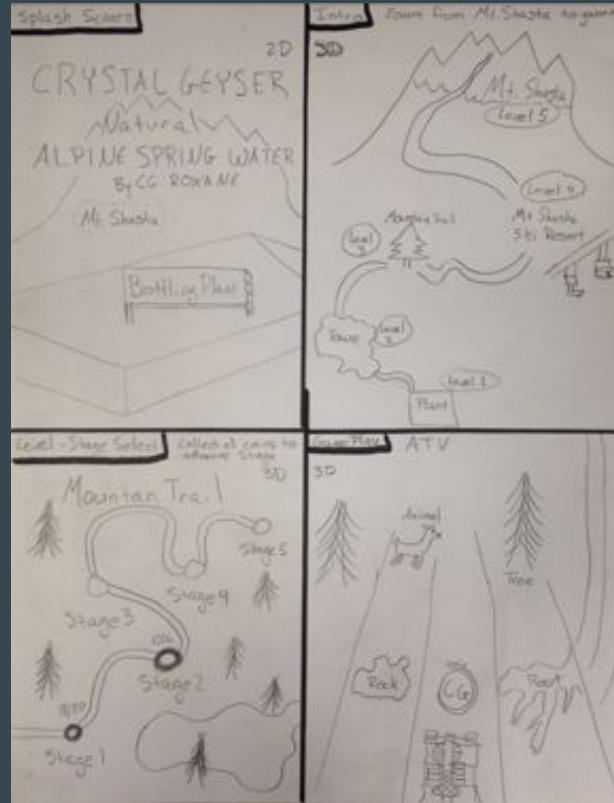
In concepting phase...

Creating a Game - A Post Mortem

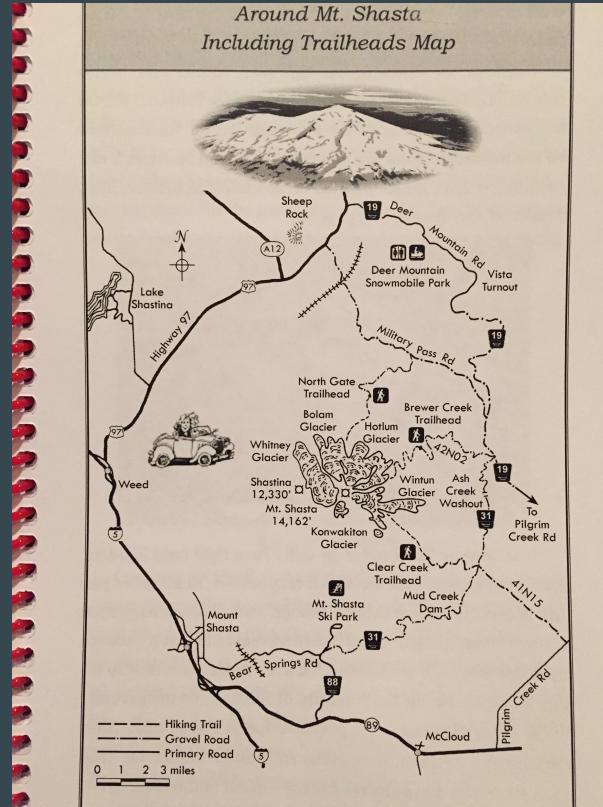
The Pitch



Concept Art - Seriously!



Lots of Research



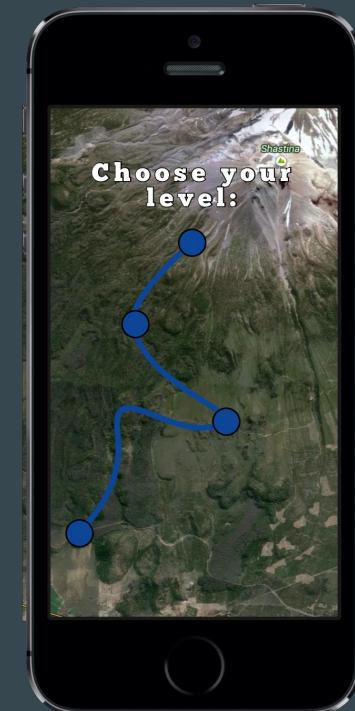
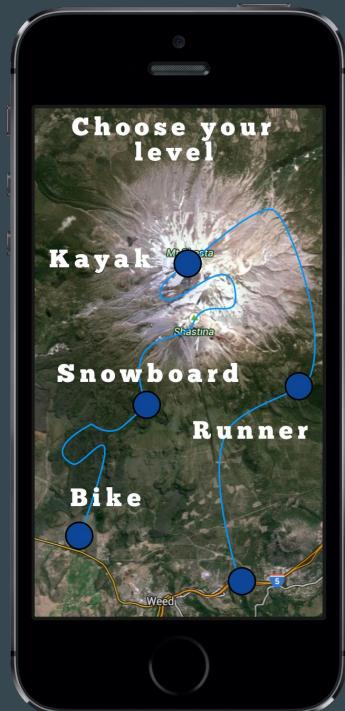
References



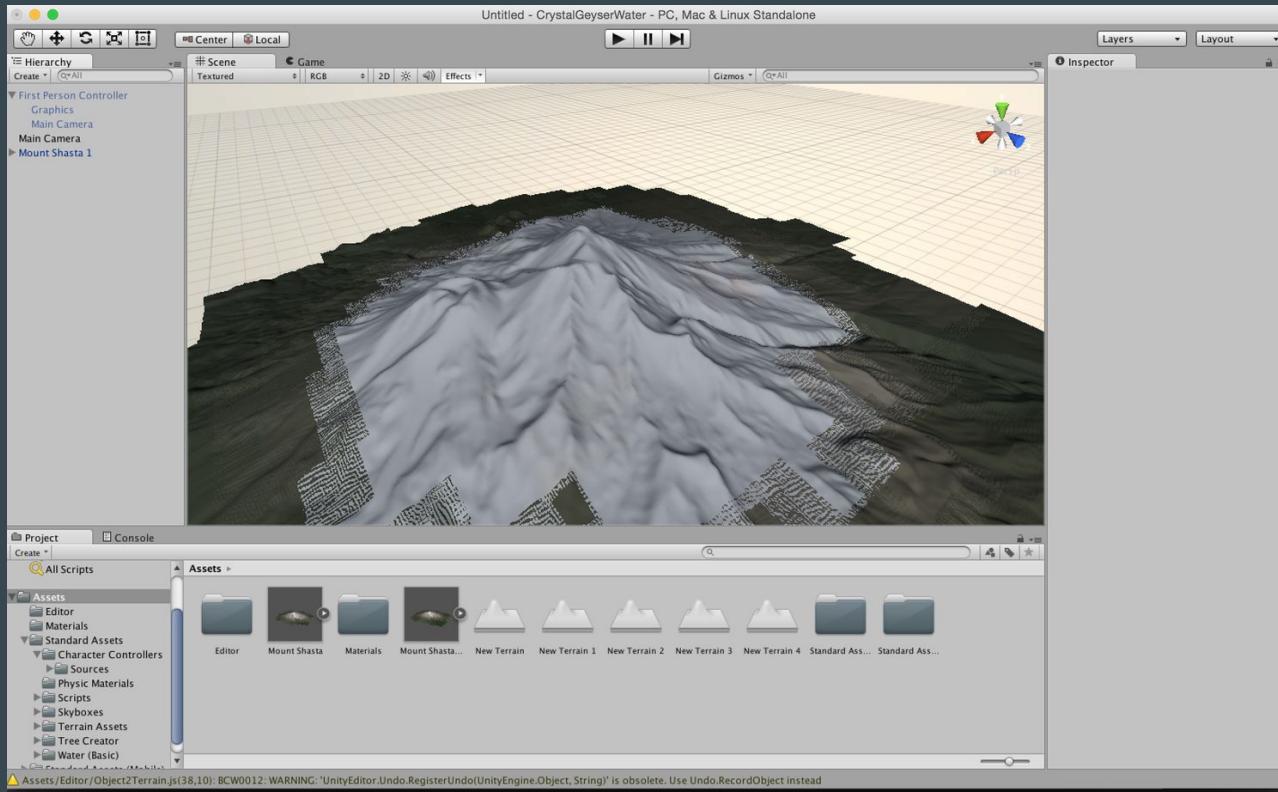
Better Concept Art



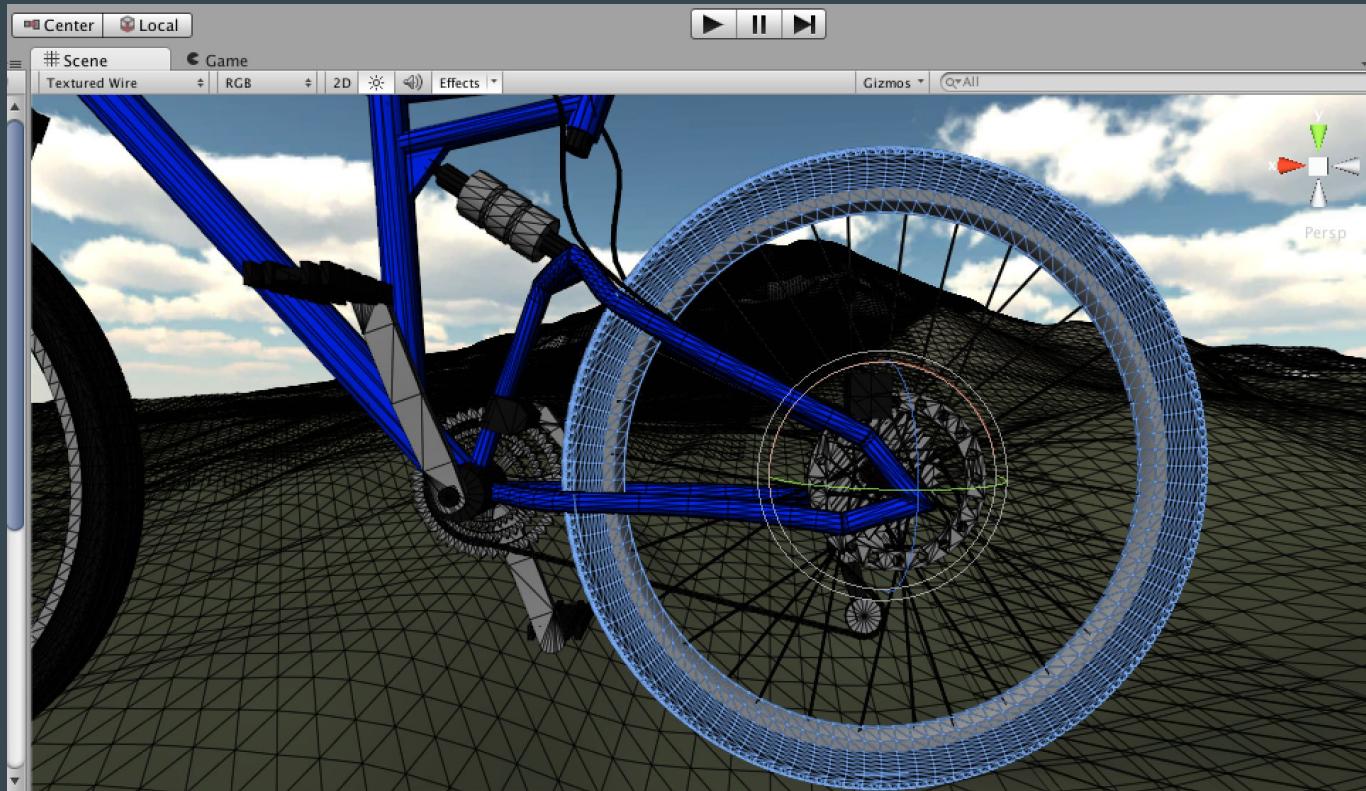
More Concept Art



Proofs of Concept - Too Much Geometry



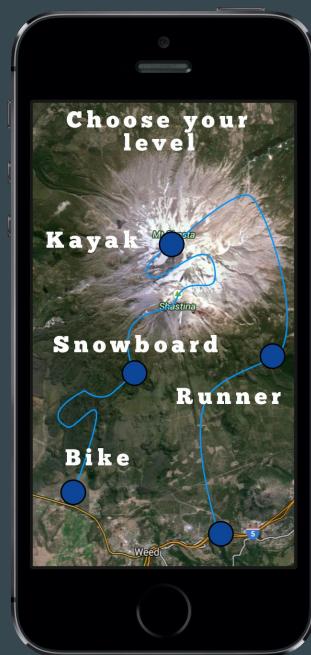
Proofs of Concept - Too Much Geometry



Final Result



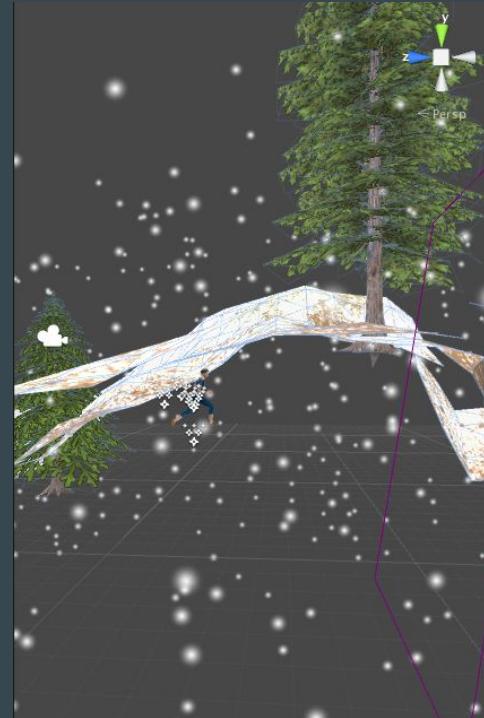
More Concept Art



Final Result



In Game Editing



More Editing



Reuse 3D Assets



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



Reuse Assets for Marketing



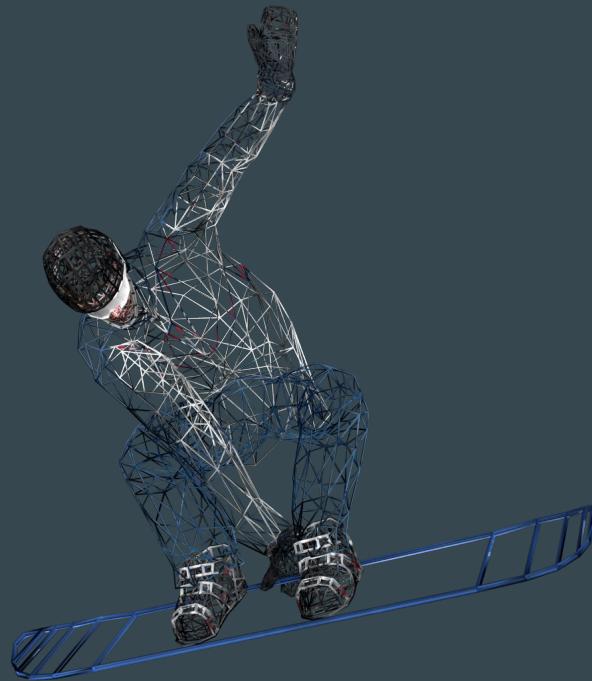
Reuse Assets for Marketing - Get Artsy!



Reuse Assets for Marketing - Get Artsy!



Reuse Assets for Marketing - Get Artsy!



Reuse Assets for Marketing - Get Artsy!



Reuse Assets for Marketing - Get Artsy!

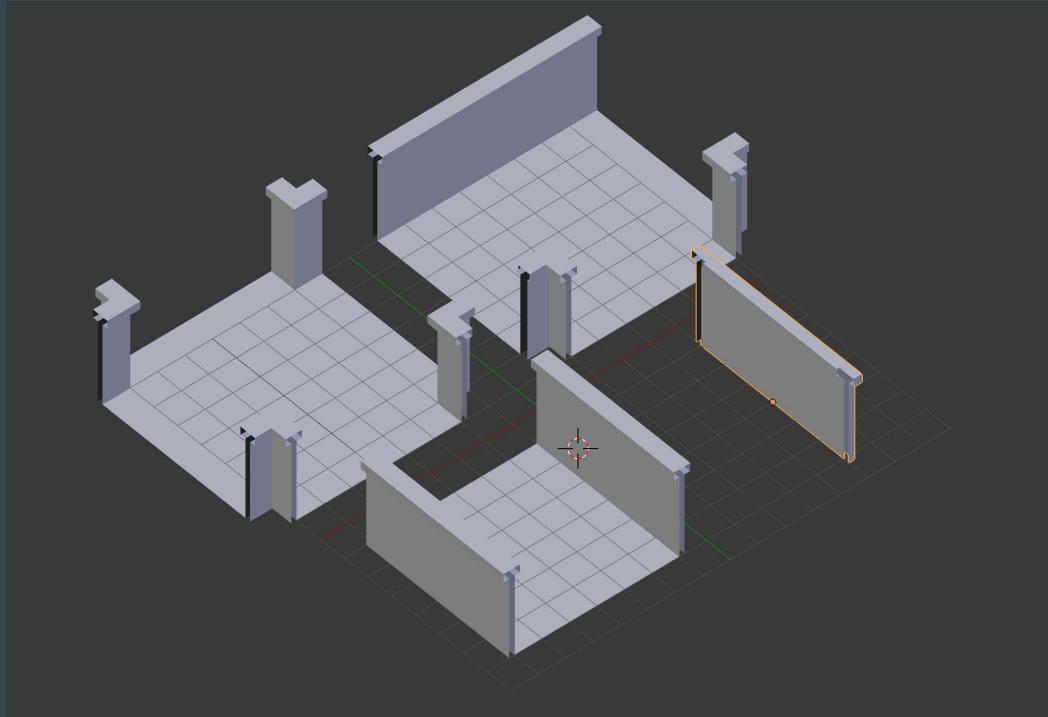


What We'll Learn in this Course

Building an RPG dungeon crawler



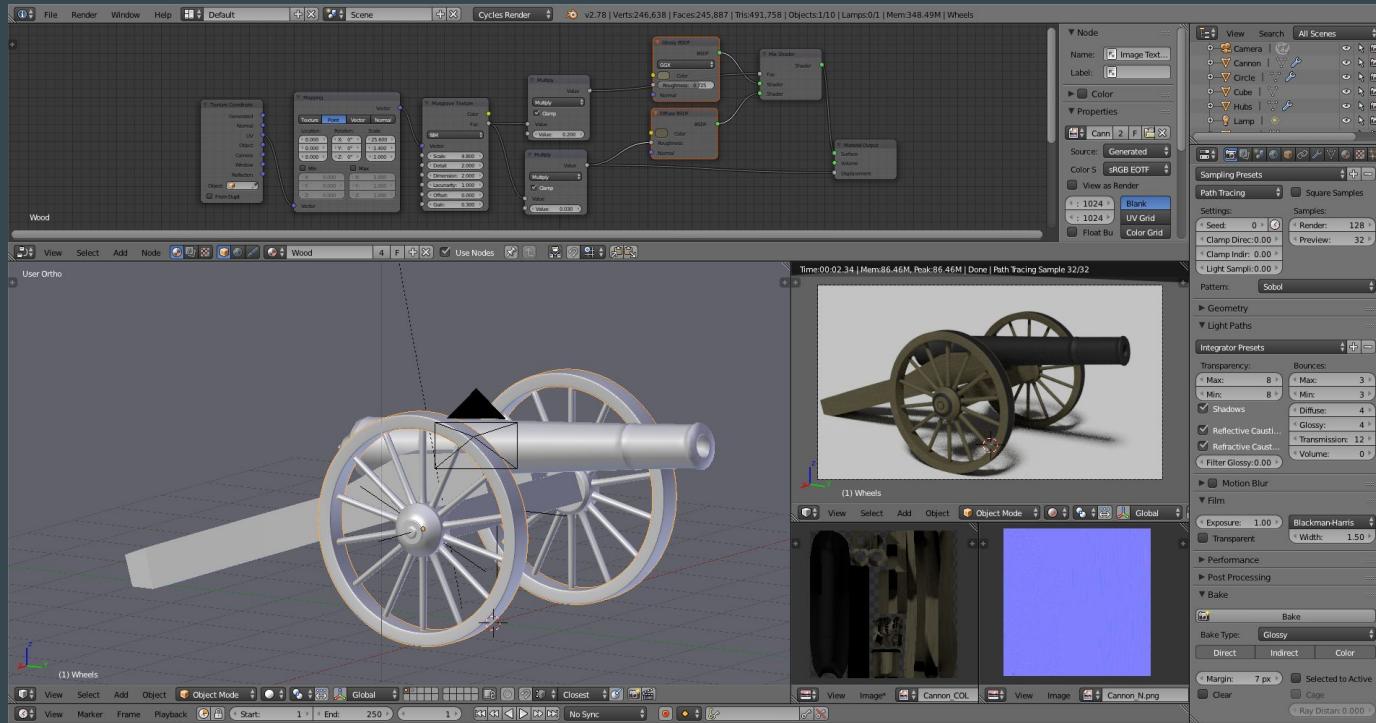
Level Creation in Blender



3D Modeling



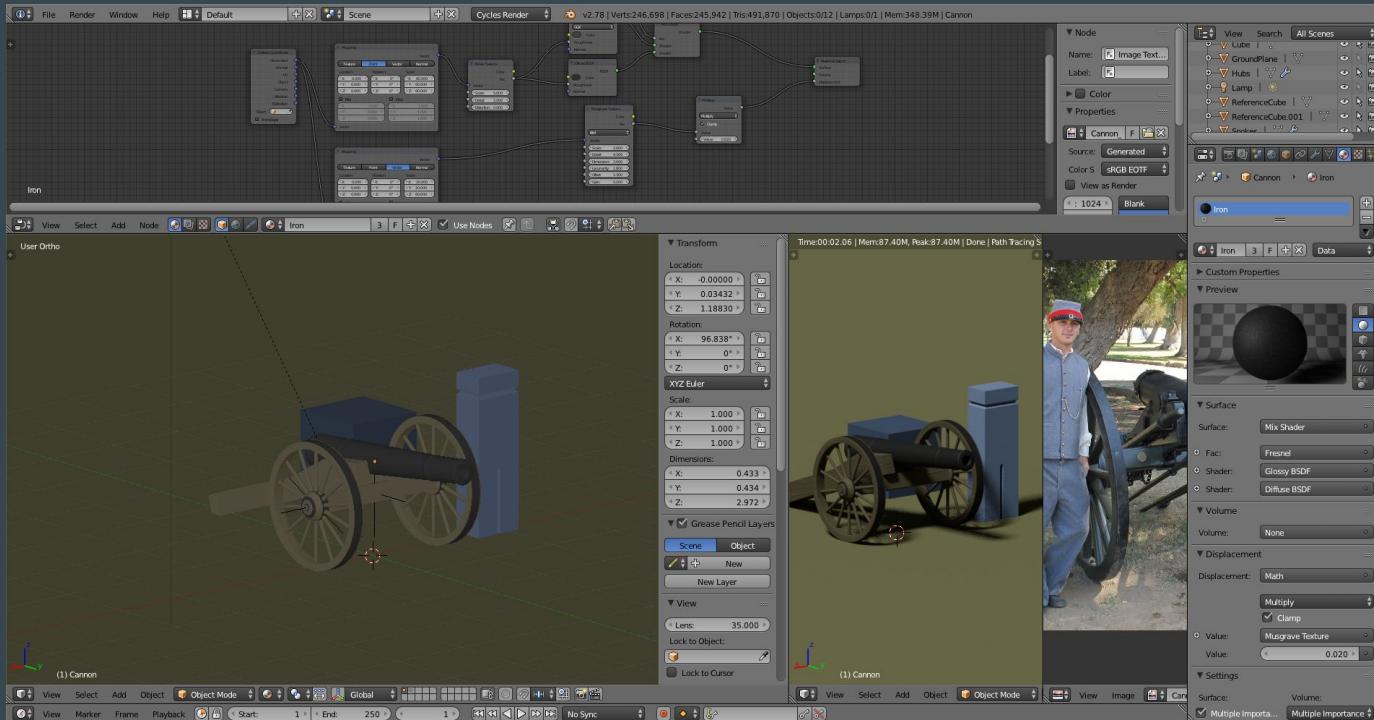
Model and Texture Assets



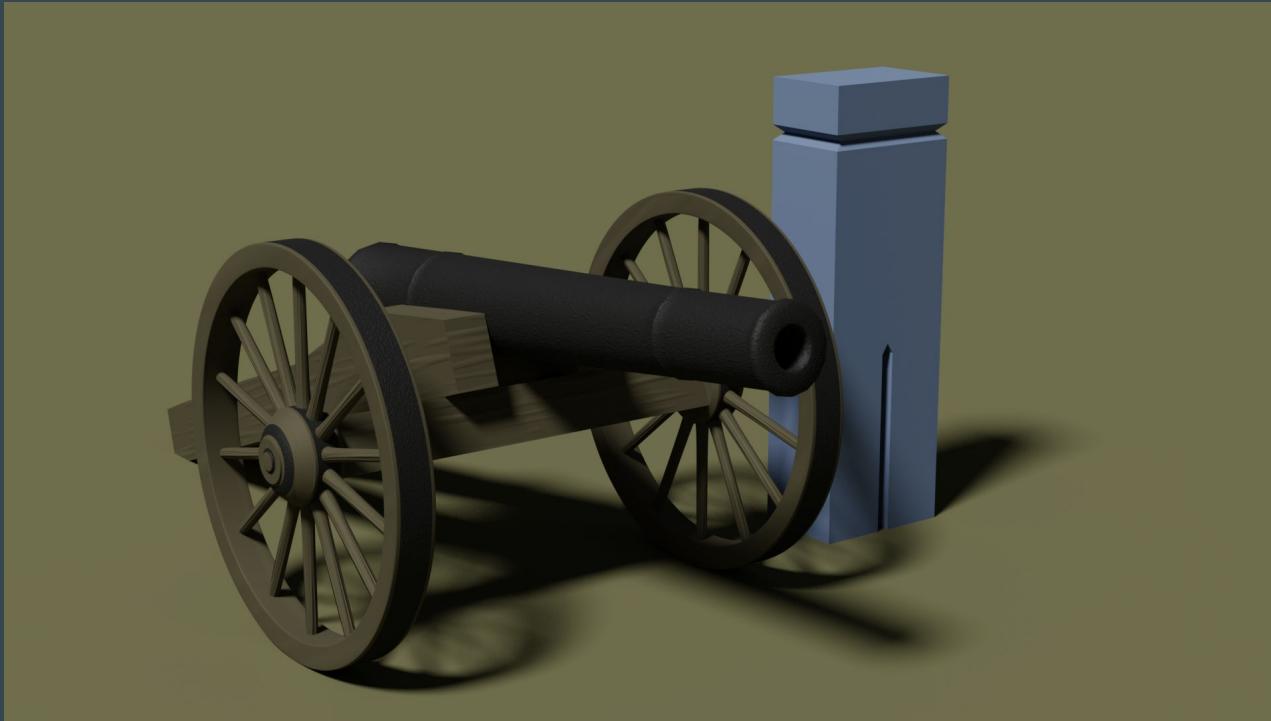
Make Those Assets Look Good



Prepare Asset for Export - Size, Orientation, Format



Final Product



Bring Those Into Unreal Engine



Set the Lighting and Environment



Learn Some C++ in Unreal Engine

```
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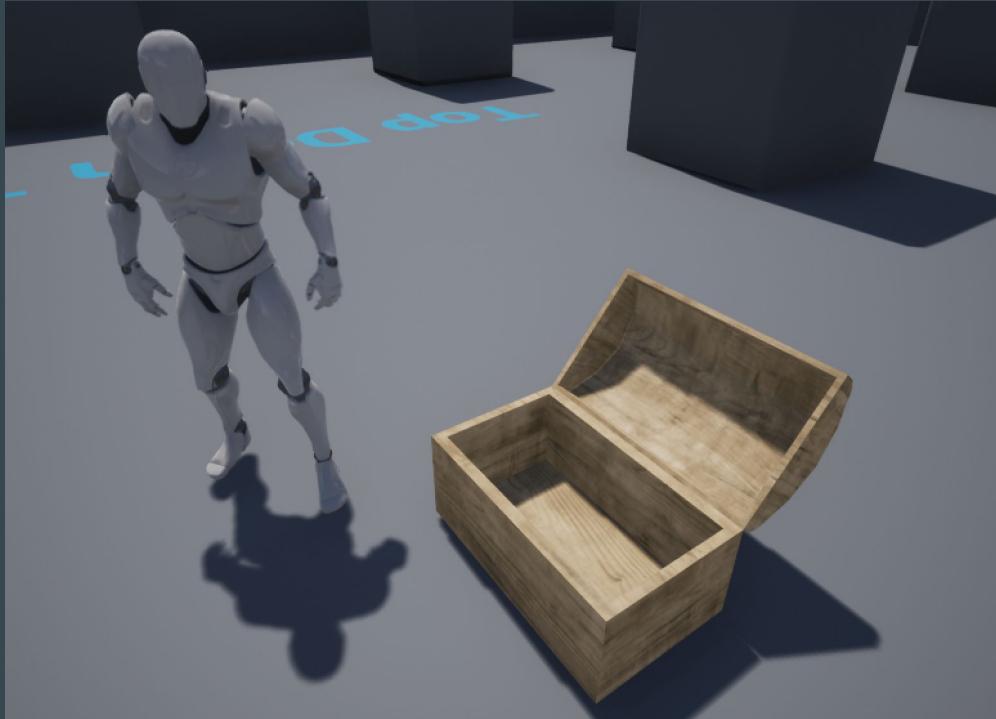
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    /** Returns collection sphere component */
    FORCEINLINE class USphereComponent* GetSphereComponent() const { return CollectionSphereComponent; }
```

Play Test



And We'll End With A Game



We're cover everything in between and more!

Grading

1. Homework at the end of each week based on what we discussed
 - a. 3 - Awesome!
 - b. 2 - Did the work
 - c. 1 - Needs improvement
 - d. 0 - No submission or wasn't even worth grading
2. Mid term project
3. Final Project - You'll follow a basic guideline and theme but will create your own game.

Put in the work, get the grade!

This is an art form. You'll be heavily graded on your creativity but technical ability counts for a lot too!

Format

- First ~15 minutes: Game news, general game discussion
- Lecture: ~30 minutes
- Building games: ~45 minutes
- Questions and coding help: ~15 minutes

Some days:

- Workshops: Build games, get help
- Peer critiques: Show your progress, get critiqued
- Game discussions: Understand games, live games