CS248 Lecture 6
SIMPLE ANIMATIONS IN UNITY

January 25th, 2018
Overview

- Course Logistics
- Short-Form Assignment Feedback
- Practical Uses of Simple Animation
- Animation in Maya
- Animation in Unity
- In-Class Demo
Course Logistics
Piazza

- Please be on it.
- Please use it.
- Last reminder if you joined late.
Grades

- You should have gotten an email with your grades.
  - We will send this out every Thursday to keep you updated
  - If you are SCPD or doing long form responses and haven’t sent them in yet, that could skew what you’re seeing.
Short-Form Assignments

- Write your name (or at least your SUNetID).
  - Lecture 4 had one without a name.
  - If you have any doubts, please email us (cs248.staff@gmail.com) to double check to see if we have recorded your attendance.
- Write legibly.
- Answers should be RELEVANT.
  - Future answers with horribly irrelevant answers will have points deducted.
  - Don’t get points deducted from your attendance when you actually attended.
Short Form Assignments Feedback

YES, I READ THEM
Rigid Bodies

- A general approximation for certain objects in the world.
- The ENTIRE object can only translate/rotate.scale.
  - Each vertex gets transformed the same way.
Graphics

- Both are good!
- A good game should be aesthetically pleasing/coherent.
  - A good game is not necessarily technically impressive.
- “Gameplay over Graphics”
- Do NOT spend significant time implementing rendering techniques not packaged with Unity (e.g. real-time ray-tracing).
General Good Advice

- Start small.
- Design your game around a singular mechanic.
  - Super Mario = Jumping.
  - Flappy Birds = Tapping.
  - Etc.
- Sound/music is an often overlooked part of video games but they contribute a lot.
  - Generally harder to find/create though so don’t worry about it that much.
- DO WHAT YOU ENJOY
- What is fun?
  - Fun is different for different people.
  - Casual vs Hardcore.
  - PC vs Console vs Mobile.
  - RPG vs RTS etc.
Practical Uses of Animation

IN VIDEO GAMES!
How to Make Animations

- Pre-Made
  - Maya
  - Blender
  - Unity

- Scripted
  - Tweening Package
  - Change based off some velocity/acceleration value and/or user input.
On-Rails Movement

Star Wars Battlefront

Gears of War

Chivalry: Medieval Warfare
And More…

Angry Birds

Candy Crush

Hearthstone
Animation Splines

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X Location - 0
Y Location - 0
Z Location - 0

X Location - 5
Y Location - 0
Z Location - 0

0 1s
0 5

X Location

Time
Animation Splines
Animation in Blender

OR MAYA OR 3DS MAX.
Blender UI
Scope of Entire Animation
Blender UI

Set Keyframe type
Blender UI – Export Animation
Animation in Unity

NATIVE AND IMPORTED ANIMATIONS.
Import Animations From Maya

- Make sure the *.FBX is in your “Assets” folder.
  - Unity will automatically import it.
- Drag and drop into your scene!
Animated objects need an “Animator Controller” to actually play animations.
Native Unity Animation
Native Unity Animation
Native Unity Animation
Scripted Animation (Tweening)

- Lots of Tweening packages
  - iTween
  - DOTween
  - Etc.
- Useful for simpler animations (e.g. user interface).
In-Class Demo

FINALLY.