

# CS 425 Game Programming 1

## Assignment 7

### Dream Game

200 points

Due Friday December 9<sup>th</sup>, 2016 at midnight

#### Submission:

- This assignment should be written using OGRE or Unreal and the framework you have been developing throughout the semester.
- When you have completed the assignment, delete the Debug directory and the .sdf file. Then zip together the rest of the directory. Be sure to include your .vcxproj and .sln files along with all of your source code files. If the project cannot be loaded and run properly, you will lose points. Name the zipped file in the following way: **LastName\_FirstName\_HW07.zip** and submit it through Blackboard by the due date.

Assignment Goal: Implement a prototype of a game based on the technologies that you have implemented this semester. Have a fun learning experience. Push yourself to get an impressive element for your online portfolio that will catch the eye of game studio recruiters.

#### Basic requirements:

1. Use OGRE or Unreal to implement at least a prototype of a 3D game. The player needs to interact with the game world and have an impact on it. As we learned in CS325, the player should be tasked with making meaningful decisions that engage him and make the game fun.
2. There should be at least 3 different game states in which the game behaves differently.
3. The characters need to be animated.
4. Include an element of luck or chance.
5. Include at least 3 levels loaded from files automatically by the game.
6. Use at least one of the following as described in class:
  - a. A\* pathfinding
  - b. Boids model for flocking
7. Use either physics or collision detection (or both): The collision detection could be by examining bounding boxes (remember OGRE represents them for you), using casted rays, or co-occupied grid locations.
8. Include appropriate feedback to the player through GUI elements, sounds, or in game changes.
9. Your game must be significantly different than previous assignments this semester.
10. Your game should be fun and well balanced.
11. Your code should be efficient, refined, and appropriately commented.
12. When you have completed your game snippet, create 3 screen shots and a video trailer (between 20 and 30 seconds long) and submit them with your code.
  - a. Camtasia and fraps are free programs for capturing videos:
    - i. <http://www.techsmith.com/camtasia.html>
    - ii. <http://www.fraps.com/>
13. Also submit a ReadMe.txt file that briefly explains how to play your game and how it meets the requirements.