CS 425
GAME PROGRAMMING 1

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ADMINISTRATIVE

- Prerequisites: CS 310, CS 325 and CS 351
  - Programming experience, in particular C++
- text: Game Engine Architecture by Jason Gregory. ISBN# 978-1-56881-413-1
- Grading
  - Presentations: 5%
  - Final Project: 25%
  - Assignments: 70%
- Assignments
  - Approximately 5*2=10 assignments
  - Work individually
  - 10 points deduction per late day

ADMINISTRATIVE

- Office hours
  - Monday 2:00 to 3:00 pm (ENGR 4442)
- Takeaways
  - Knowledge about graphics, animation, simulations, games
  - Programming experience
  - Tools, technologies, methodologies
  - Foundation of a game

Classroom Behavior

- During the lecture/presentation/demo, the students should not play games, text on your phone and surf the web
- All electronic communication devices (including laptops, PDAs, cell phones) should be either turned off or silenced

Video Game?

- What is a video game?

TOPICS

- Game engines
- Camera system
- Procedural content generation
- Path finding and navigation
- Collision detection
- Physics simulation
- Animation
- Game AI: state machines, rules, sensing, memory
- Real-time rendering
- Other topics
  - MMORGB related topics
  - Web-based games
  - Sound/Audio
  - Unity

QUESTIONS FOR YOU

- How much C++ experience?
- Be working on your own computer?
- Have you worked with
  - OpenGL/DirectX?
  - OGRE (or any game engine)?
  - ODE/Bullet/Box 2d (or any physics engine)?
  - Game developer suite
- What do you want out of this class?
- Are there specific tools or algorithms you'd like to see?

QUESTIONS FOR ME?

CS 426

- It is actually not too early to think about CS 426
- The best video games developed in past CS426 classes started from an incomplete games instead of from scratch
- Start to think about
  - Your game play
  - Sub-systems in your game
    - IO, sound, network, assets
  - Techniques required