

CPSC 426 Summary

What you know

- history of animation
- display systems
- parametric curves
 - derivation, basis functions, basis matrices
 - Hermite, Bezier, B-spline, Catmull-Rom, ...
- deformation methods, FFDs
- affine transformations
- representing rotations
 - rotation matrix, Euler angles, angle-axis, quaternions

- sources of animated motion
 - artist, mocap, procedural
- motion capture
 - human degrees of freedom
 - motion capture systems
 - processing motion capture data
- principles of animation
- Uncanny Valley

- character skinning
- inverse kinematics
- fluid simulation (guest lecture)
- VFX (guest lecture)
- particle systems
- rigid body dynamics

[will be providing practice questions]

What you don't know

- games
 - development, work flow,
- VFX + Animated Films
 - storyboards, pre-vis, compositing
- facial animation
- crowd simulation
- physics
 - collision detection, collision response
 - efficient simulation of cloth, hair, fluids, ...
- tools experience
 - Maya, Houdini, 3ds Max, Blender, ...
 - MotionBuilder, Vicon Blade, ...
 - artistic skills