Game Play Programmer

Required Skills

Level 1
- Produces code with basic proficiency in C++/CH, Open GL, Dice AX, and Web GL.
- Employs 3D math skills to script motion in a 3D space.
- Assesses problems and creates innovative solutions by thinking outside of the box.
- Complies with artists/designers during game production.

Level 2
- Employs procedural modeling/design in asset creation.
- Develops pathfinding algorithms that realistically move characters through the space.
- Designs AI systems that incorporate character awareness, changing behaviors, and interaction with other characters/objects.
- Demonstrates proficiency in a variety of animation systems.
- Constructs state machines for efficient gameplay.

Level 3
- Produces code with advanced proficiency in C++.
- Assembles gameplay structures using evolutionary programming techniques.
- Assesses real time render engine design and develops assets and gameplay accordingly.
- Develops shading systems through written code.
- Devises challenging, yet intuitive combat systems.
- Designs efficient parameter driven tuning systems that drive difficulty with fun and the promise of reward.
- Creates systems of receiving user input that make character control and interactions feel natural.

What courses should I take?
- VIST 170  - VIST 284  - VIST 470
- VIST 270  - VIST 370  - VIST 486
- VIST 271  - VIST 372  - VIST 487

This information was gathered by the Department of Visualization at Texas A&M University through consultation with members of the department's industry advisory board. It is intended to serve as a reference for students in the BS, MS, and MFA in Visualization programs as they consider professional opportunities.