Cullen Goodwin-Schoen
Technical Artist

Phone: (410)-953-9737

220 John Street, Apartment 13102
Rochester, NY 14623

Email: cullen.goodwin@gmail.com
Portfolio: cullengs.com

/in/cullengs/   Cullen Goodwin-Schoen Animation   cgoodw   cgoodw

Education

Graduation: May 2020 (Pending a Job Offer)

Rochester Institute of Technology (RIT), Rochester, NY

Bachelor of Science, *Game Design & Development*
Minor: *3D Digital Design*
Minor: *Digital Literatures and Comparative Media*

Cumulative GPA: 3.76   Major GPA: 3.96   Dean's List

Skills

C++ (3 years), HLSL, GLSL, C# (6 years), Python, JavaScript, Java, Unreal Engine, Unity

Maya (7 Years), 3DS Max, ZBrush, Substance

Photoshop(4 Years), GIMP, After Effects, Audition, Premiere Pro (Certified)

Projects

TECHNICAL ARTIST | FEB 2020 – PRESENT
Element Smash   3D Tile matching game made in DirectX 11 in a custom engine
- Developed an entity, texture, 3D camera and normal mapping system using HLSL and C++ in DirectX 11
- Added 3D lighting and reflections, including PBR to the engine
- Developed a game loop and menu system for the engine

TECHNICAL ARTIST | FEB 2020-PRESENT
Halloween Nightmare   3D Third Person Horror game in Unreal Engine
- Created and used custom LODs, HLODs, and Level Streaming to optimize a high-poly open world terrain to run on a given amount of RAM
- Used a variety of color grading and post processing techniques in Unreal to develop a horror-like ambience to the game
- Programmed interactions including item pickups, a flashlight system, spline animations and UI using Blueprint

TECHNICAL ARTIST | OCT 2019 – DEC 2019
Target Practice   3D FPS in OpenGL with collisions and spatial optimization (C++)
- Developed a 3D FPS camera with full rotation and WASD movement, using quaternions to prevent Gimbal Lock
- Created data structures to implement menus, track bullets, ammo, and score
- Added, created, and laid out original FBX models of boxes, walls, and barrels into the OpenGL scene with AABB collision detection

DEVELOPER | OCT 2018 – NOV 2018
Hockey Asteroids   2D Asteroids-like Game in Unity and C#

- Created vector and force-based movement systems for gravity, friction, and acceleration on both the player and obstacles sliding on ice
- Developed a 'shot power' system, with a dynamic UI to represent projectile speed and angle
- Designed and Created all art, menus, and UI elements in Photoshop

Work Experience

Zone Supervisor- *Gene Polisseni Center* | August 2018- Present
Ice Hockey Rink in Rochester, NY
- Oversee 40+ student employees providing feedback, training, and guidance
- Manage 4000+ guests at hockey games to ensure safety and entertainment
- Resolve issues, sometimes dealing with problematic fans

Rink Usher- *Gene Polisseni Center* | December 2017- August 2018
Ice Hockey Rink in Rochester, NY
- Guided fans and players to respective locations
- Maintained safe and orderly conduct in the stands

Related Courses

- Game Graphics Programming
  - Creating a custom DirectX11 Game Engine
  - Lighting, Materials, Rendering in 3D with HLSL and C++

- Programming for Technical Art
  - Material Optimization, Post Processing, H/LODs, Level Streaming
  - Unreal Graphics profiling tools, RHI
  - Blueprint and User interactions

- Advanced Rigging
  - Rigging in Maya, Python and MEL
  - Auto-Rigging and skinning with Python
  - Organic, Mechanical, and Camera Rigs
  - Biped, Quadrupeds and Face Rigs

- Modeling and Motion Strategies
  - Maya, ZBrush, Mudbox, Substance
  - Inorganic Hard Surface models
  - Organic Sculpts
  - Texturing, UVs, Photoscans

- Math of Graphical Simulation (Linear Algebra)
  - Octave and VPython
  - Matrix Transformations and Rotations
  - Orthogonal Projections, Vector Math
  - Mathematical Modeling of Physics

- Data Structures and Algorithms
  - C++, OpenGL, SFML, Box2D, Shaders
  - Unit Testing, DLLs, Libs, Git
  - Multi-Threading, Installers, Templates
  - 3D Graphics, Shaders, Collisions and Transformations on the GPU
  - Implementation of A* in a maze