

# LEE SCHEINBEIM

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<http://lee.scheinbeim/>

## QUALIFICATIONS

- Shipped seven games and multiple DLC releases across three hardware generations and multiple console platforms
- Wide gamut of both artistic and technical roles provides a unique cross section of gamedev expertise
- Proficient in all areas of rendering from shader authoring to managing an entire render pipeline
- Ability to proactively solve both technical and artistic problems both independently and collaboratively
- Capable of creating highly polished cinematic and environment lighting
- Practiced communication skills with artists, designers and programmers
- Experienced with many different rendering engines and techniques
- Highly motivated to learn new tools, techniques and processes
- Trained eye for monitoring and reacting to runtime performance and memory footprints

## EXPERIENCE

### **Senior Lighting Technical Artist, Singularity 6: Oct, 2023 - Present**

**Palia** (PC, Switch), Unreal 5.3, Shipped Open Beta September, 2023

- Rebuilt skydome material to be visually consistent with existing content while improving performance and flexibility for future content
- Replaced Unreal's tonemapper with a plugin to support consistent SDR and HDR content to ensure visual consistency and art direction across various displays
- Responsible for lighting several new areas of the game along with cinematics while fitting into Switch performance targets
- Worked closely with engineering to build a pathway forward to a more flexible day/night and biome based lighting system

### **Senior/Lead Technical Artist, Harebrained Schemes: Jan, 2015 - Oct, 2023**

**The Lamplighter's League** (PC, Xbox Series), Unity 2021, Shipped October, 2023

- Created and managed a fork of Unity's High Definition Render Pipeline to implement various features and to customize the pipeline for the game's specific needs
- "Metaball" water and oil decals, analytic capsule shadows for actors, gobos and "fake" shadows, cheap indirect only lights for special effects, procedural weather overlay effects, scatter instancing system for ground cover objects, visibility system for culling assets that block gameplay
- Implemented full HDR display support including color space and UI management with a customized tonemapper
- Custom global illumination system based on probe volumes including octahedral encoded depth information to handle probe occlusion
- Responsible for implementing all lighting across the entire game
- Heavily involved in performance and memory optimization across all art contexts in the game including analysis on both PC and on console

**BATTLETECH** (PC, Mac, Linux), Unity 5.4/2018, Shipped April 2018

- Implemented custom clustered lighting system and frustum aligned voxel volumetric fog on top of built in Unity renderer
- Developed a "mood" system for storing a collection of lighting and atmospheric effects
- Authored all moods across all biomes to create visual interest and variety across the inner sphere
- Responsible for managing the art assets in the "sim game" between missions, including lighting and general polish of interior sets and animation and lighting of all space transition sequences
- Authored semi-procedural planetary shader including raymarched clouds and a prebaked atmospheric simulation
- Developed several techniques for rendering large scale urban environments including shader support for prebaked mesh destruction
- Created system for rendering large scale vegetation and efficiently terrain rendering that superseded Unity's built in system

**Necropolis** (PC, Mac, PS4, Xbox One), Unity 5.0, Shipped July, 2016

- Implemented custom rasterized punctual lights and deferred decals on top of built in Unity renderer
- Built custom PBR inspired cel shading shader suite used on the majority of game assets
- Dynamic lighting system synced across sky, placed lights and VFX
- Managed environment asset rendering performance in a runtime procedurally built world

**Lighting Artist, Visceral Games (Contract): Oct, 2014 to Nov, 2014**

**Battlefield Hardline**, (PC, PS4, Xbox One), Frostbite Engine, Shipped March 2015

- Performed environment and cinematic lighting on the game's main hub level
- Assisted in lighting related bug fixing on several levels

**Lighting Artist, Bioware (Contract): June, 2014 to Sept, 2014**

**Dragon Age Inquisition** (PC, PS4, Xbox One), Frostbite Engine, Shipped November 2014

- Responsible for lighting the majority of the cinematic content from high intensity plot moments to romance scenes
- Worked with tools programmers to refine cinematic lighting tools and process

**Lighting Artist, Airtight Games: Oct, 2012 to Jan, 2014**

**Murdered: Soul Suspect** (PC, PS4, Xbox One), Unreal 3, Shipped June 2014

- Responsible for lighting half of the game environments and cinematics
- Managed environmental lighting to support design goals and overall creative direction
- Texture and shader polish to visually tie levels together to work with final lighting including overall color direction
- Created and refined post process settings to create distinct but consistent visual feels for various game areas

**Environment Artist, Bioware: June, 2007 to Oct, 2012**

**Dragon Age Inquisition** (pre-production)

- Spearheaded lighting, shader and various technical investigation and documentation for migration to Frostbite

**Dragon Age 2** (PC, PS3, Xbox 360), Proprietary Engine, Shipped March, 2011

- Provided support for the entire level art team to overcome technical issues
- Built and maintained several levels including layout and flow, prop placement and final lighting
- Oversaw the entire prop pipeline, including devising appropriate folder structures as well as integrating outsourced assets

**Dragon Age Origins** (PC, PS3, Xbox 360), Proprietary Engine, Shipped November, 2009

- Built and maintained several levels including layout and flow, prop placement and final lighting
- Assisted in the development and support of the lighting pipeline

**Technical Artist, Bioware: June, 2006 to June, 2007**

**Dragon Age Origins** (Vertical Slice)

- Assisted in tool shakedown and lighting pipeline development
- Helped manage asset pipelines and associated debugging

## SKILLS AND INTERESTS

- Primary Languages: HLSL, C#, C++
- Engine Experience: Unity, Unreal, Frostbite
- Strong interest in developing lighting and global illumination through modern rendering techniques
- Special interest in HDR and color gamut aware pipelines

## EDUCATION

**Vancouver Film School** – Vancouver, Canada, Graduated Dec, 2005  
3D Art and Animation

**Rutgers University** – Piscataway, New Jersey, Graduated May, 2004  
Bachelor of Science, Computer Engineering