Daniel Hayes

Senior Technical Artist – Lighting, and Materials

San Francisco, CA
Phone: 310-383-6385
Email: d@hayesdaniel.com
Website: www.hayesdaniel.com

Professional Summary

- Technical Artist with 21+ years of experience supporting large-scale game, film, themed entertainment, and commercial productions.
- Deep expertise in Unreal Engine environment workflows, lighting, materials, and pipeline development.
- Proven ability to build scalable, artist-facing tools, define technical standards, optimize performance for real-time environments, and collaborate across art, design, and engineering teams.
- Strong leader with a track record of delivering complex technical and artistic solutions under tight production constraints.
- Specialist in building and leading cross-discipline teams that deliver efficient and beautiful computer graphics for real-time or static rendering.

Core Skills

- Technical Art for Environments, Characters and Pipelines
- Unreal Engine Materials and Lighting
- Shader and Material Development
- World-Scale Pipeline Development
- Artist Tools and Workflow Automation
- Performance and Memory Optimization
- Cross-Discipline Collaboration
- Mentorship and Technical Leadership

Technologies

Engines and DCC Tools: Unreal Engine, Maya, Blender, Houdini, Katana, Nuke, RenderMan, V-Ray, Arnold, DaVinci Resolve

Programming and Scripting: Python, C++, C, Qt, Unreal Blueprints, MEL

Version Control and Production Tools: Perforce, Git, Jira, Confluence

Other: Color Science, Color Calibration

Professional Experience

Crystal Dynamics

Senior Lighting Technical Artist
March 2019 – November 2025
- Led environment lighting and materials development for AAA real-time game projects using Unreal Engine.
- Designed and maintained scalable lighting and material systems supporting large environments and cinematics.
- Built artist-facing tools and workflows using Unreal Blueprints, Python, and C++.
- Partnered with engineering and environment art teams to define performance budgets and optimize shaders, materials, and lighting for PC and console.
- Provided technical leadership and mentorship, establishing best practices for environment lighting and materials.
- Worked with third-party vendors to evaluate new software and hardware deployment.

Industrial Light and Magic
San Francisco, CA
Lead Lighting Technical Director
March 2014 – June 2018
- Led lighting and look development for complex character and environment-heavy feature film productions.
- Defined technical approaches balancing visual fidelity with pipeline scalability and performance across disciplines.
- Developed core components of Katana and RenderMan lighting pipelines.
- Contributed to facility-wide shading and rendering standards.
- Mentored artists and technical directors across multiple projects.
- Projects included "The Avengers: Age of Ultron", "Rogue One: A Star Wars Story", and "Star Wars: The Last Jedi".

RGH Themed Entertainment
Woodland Hills, CA
Lighting Technical Director
July 2013 – November 2013
- Delivered lighting and look development for a stereo panorama theme park ride environment using Maya and Arnold.
- Developed Python and MEL tools to support environment lighting workflows and iteration.

Prologue Films
Venice, CA
Lead Lighting Technical Director
March 2013 – June 2013

- Led lighting and look development for "Destiny" opening cinematic in Maya and V-Ray.
- Collaborated with directors and supervisors to establish visual targets based on concept art.
- Developed lighting and compositing tools using Python and MEL in Maya, V-Ray, and Nuke.

Mirada Studios
Marina del Rey, CA
Lighting Technical Director
October 2012 – December 2012
- Supported lighting and look development for CG elements integrated into filmed environments in Maya and V-Ray.
- Developed animation and rigging tools in Maya using Python and MEL.
- Pipeline troubleshooting and technical problem-solving in Python and Linux.

Saatchi & Saatchi
Torrance, CA
Lighting Technical Director
May 2012 – June 2012
- Lit, rendered, and composited high-quality automotive imagery for web and print in Maya and V-Ray.
- Developed standardized Nuke templates and gizmos in Python for consistent rendering workflows.
- Assisted with development of color-correct workflows.

Sony Pictures Imageworks
Culver City, CA
Lighting Technical Director
January 2012 – May 2012
- Delivered lighting and look development for large-scale environments and characters on "The Amazing SpiderMan" using Katana and Arnold.

Dr. D Studios
Sydney, Australia
Lighting Technical Director
May 2011 – November 2011
- Developed lighting and look development for crowd and environment-heavy sequences on "Happy Feet 2" in Houdini.
- Assisted in debugging and extending Houdini and Nuke pipelines using Python.

Industrial Light and Magic

San Francisco, CA
Lighting Technical Director
October 2010 – May 2011
- Delivered lighting elements for live-action integration on "Transformers: Dark Side of the Moon".
- Developed tools in Python to adapt existing character and environment assets to alternate lighting and rendering software.

Sony Pictures Imageworks
Culver City, CA
Senior Production Services Technician
May 2005 – January 2010
- Authored and supported monitoring tools for render farm performance, storage utilization and asset data ingest in Python and Perl.
- Extensive internal artist training for lighting in Katana and RenderMan.
- Projects included Ghost Rider, Spider-Man 3

Digital Domain
Venice, CA
Technical Assistant
March 2004 – May 2005
- Developed software for automated backup and restore workflows in Perl and QT.
- Served as a liaison between production and technical teams to allocate and optimize resources.

Education
Hampshire College – Amherst, MA
February 2000 – December 2003
Bachelor of Arts in Computer Graphics