

# Stephen H. Westin

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## Objective

I am seeking a challenging position where I can bring my strengths to bear: technical proficiency, visual thinking, and a creative, outside-the-box approach to solving problems.

I believe my particular strengths lie in

- Computer graphics ranging from physically-based ray tracing to real-time simulation
- Human-computer interaction, applying knowledge of human perception
- 3D design and visualization; my experience ranges from high-quality modeling in 3D Studio Max and Sketchup to my role in initial development of a sophisticated 3D CAD system

## Education

Year	Institution	Degree
1992	Cornell University	Master of Science (Computer Graphics) <a href="#">Thesis: Predicting Reflectance Functions from Complex Surfaces</a>
1980	University of Michigan	Bachelor of Science in Engineering (Computer Engineering)

## Experience

Years	Organization	Responsibilities
May 2014- March 2018	GammaTech, Inc. Ithaca, NY	Developed and maintained static software analysis code to check against MISRA guidelines. C++, C, Python. Enhanced Web and local GUI using Python, Jinja, wxWidgets Active in large-scale software testing (automated, manual).
2007-2014	Doron Precision Systems, Inc. Binghamton, NY	Developed graphics software for driving simulators using OpenSceneGraph, Delta3D. Developed vehicle dynamics model for real-time simulation using PAL and Bullet. Led production of geometric models and textures (vehicles, props, characters, and virtual world) using 3DS Max, Sketchup, Photoshop, etc.
2005-2007	Animusic LLC, Lansing, NY	Implemented real-time display using OpenSceneGraph Partnered in creating custom skins for GUI using Qt toolkit Installed RenderMan render farm on 13-node cluster.
1997-2005	Cornell University Program of Computer Graphics	Maintained Light Measurement Lab in support of research. Collaborated on research in camera acquisition of appearance
1984-1997	Ford Motor Company Dearborn, MI Köln, Germany	Produced HDTV animations under tight time constraints for market research and design evaluation. Coordinated development of new CAD system, then facilitated multi-million-dollar rollout to design studios. Consulted on rendering and design issues. Researched advanced electronic tools for creative design.

# Publications

Hongsong Li, Sing-Choong Foo, Kenneth E. Torrance, and Stephen H. Westin.

Automated three-axis gonioreflectometer for computer graphics applications.

*Advanced Characterization Techniques for Optics, Semiconductors, and Nanotechnologies II, Proc. SPIE 5878, Aug. 2005.*

Stephen R. Marschner, Stephen H. Westin, Adam Arbree, and Jonathan T. Moon.

Measuring and Modeling the Appearance of Finished Wood.

*ACM Transactions on Graphics, Proceedings of SIGGRAPH 2005.*

James A. Ferwerda, Stephen H. Westin, Randall C. Smith, and Richard Pawlicki.

Effects of rendering on shape perception in automobile design.

*First ACM Symposium on Applied Perception in Graphics and Visualization, July 2004, 107-114.*

Stephen R. Marschner, Stephen H. Westin, Eric P. F. Lafortune, and Kenneth E. Torrance.

Image-based bidirectional reflectance distribution function measurement.

*Applied Optics-OT, 39(16):2592--2600, June 2000.*

Stephen R. Marschner, Stephen H. Westin, Eric P. F. Lafortune, Kenneth E. Torrance, and Donald P. Greenberg.

Image-based brdf measurement including human skin.

*In Eurographics Workshop on Rendering, 1999.*

Stephen H. Westin, James R. Arvo, and Kenneth E. Torrance.

Predicting reflectance functions from complex surfaces.

*Computer Graphics (SIGGRAPH '92 Proceedings), 26:255--264, July 1992.*

François X. Sillion, James R. Arvo, Stephen H. Westin, and Donald P. Greenberg.

A global illumination solution for general reflectance distributions.

*Computer Graphics (SIGGRAPH '91 Proceedings), 25:187--196, July 1991.*