Jonathan T. Moon

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EDUCATION

Ph.D. Computer Science (in progress)
Cornell University, Ithaca NY, expected December 2009
Thesis title: Physically based rendering of hair and other discrete random media
Minor field: Applied mathematics
Committee: Stephen R. Marschner (advisor), Donald P. Greenberg, Dan Huttenlocher, Dexter Kozen

B.S. Computer Science and B.S. Mathematics *Magna cum laude* University of Minnesota, Minneapolis MN, May 2003

Research Interests

Efficient physically based rendering techniques for hair, discrete random media, scattering volumes, and subsurface effects. Multiple scattering and global illumination, appearance modeling and measurement.

PUBLICATIONS

Wenzel Jakob, Jonathan T. Moon, and Steve Marschner. *Capturing hair assemblies fiber by fiber*. To appear at ACM SIGGRAPH Asia 2009.

Jonathan T. Moon, Bruce Walter, and Steve Marschner. *Efficient multiple scattering in hair using spherical harmonics*. ACM Transactions on Graphics 27(3) (SIGGRAPH 2008).

Jonathan T. Moon, Bruce Walter, and Stephen R. Marschner. *Rendering discrete random media using precomputed scattering solutions*. 18th Eurographics Symposium on Rendering, 2007.

Jonathan T. Moon and Stephen R. Marschner. *Simulating multiple scattering in hair using a photon mapping approach*. ACM Transactions on Graphics 25(3) (SIGGRAPH 2006).

Stephen R. Marschner, Stephen H. Westin, Adam Arbree, Jonathan T. Moon. *Measuring and modeling the appearance of finished wood*. ACM Transactions on Graphics 24(3) (SIGGRAPH 2005).

EXPERIENCE

Industrial Light & Magic, *R&D Intern in Rendering* Cornell University, *Research Assistant* Cornell University, *Teaching Assistant* Microsoft Corporation, *Software Test Engineer* Unisys Corporation, *Student Technical Intern* 2008 summer 2005 - present 2003 - 2005 2002 summer 1999 - 2001 summers

Assistant Teaching

COMS 667: Physically Based Rendering. Spring 2005 COMS 467: Computer Graphics II. Spring 2004. *Head TA, practicum lecturer* COMS 280: Discrete Structures. Fall 2003. *Head TA, received department TA award*

Relevant Coursework

COMS 567: Physically Based Animation. Spring 2007 COMS 667: Physically Based Rendering. Spring 2004 COMS 412: Numerical Analysis. Fall 2004 COMS 665: Advanced Rendering. Fall 2003

TECHNICAL EXPERIENCE

Programming languages: Java, C/C++, MATLAB, RenderMan Shading Language Operating Systems: Windows, Linux/Unix, Mac OS X

SERVICE

Conference Reviewing: ACM SIGGRAPH, Eurographics, Pacific Graphics, EG Symposium on Rendering Journal Reviewing: IEEE Computer Graphics and Applications Member: ACM, ACM SIGGRAPH Cornell Department of Computer Science Picnic Czar 2003 – 2008

AWARDS

Microsoft College Puzzle Challenge: 1st at Cornell 2005 – 2008; 3rd overall 2007, 2nd overall 2006 Cornell BOOM logo design contest: 1st runner-up, 2004 ACM International Collegiate Programming Contest World Finals participant, 2003 United States Presidential Scholar, 1999

References

Available upon request