

Dr. Jaakko Lehtinen

Curriculum Vitae
June 28, 2013

Basic Information

Date of birth	1977
Place of birth	Vantaa, Finland
Citizenship	Finnish

Selected Experience

Aalto University

Department of Media Technology, School of Science

Position	Assistant Professor , September 2012-present. (2 nd term, accelerated tenure clock)
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NVIDIA Corporation

Position	Senior Research Scientist , June 2010-present.
Supervisor	Sr. Director of Research Dr. David Luebke

Massachusetts Institute of Technology (MIT)

Computer Science and Artificial Intelligence Laboratory (CSAIL)

Position	Postdoctoral Associate , November 2007-May 2010. Visiting Scholar , October-December 2004.
Advisor	Professor Frédo Durand
Notes	Supported by the Academy of Finland (Nov 2007-Dec 2008), and Massachusetts Institute of Technology (Jan 2009-May 2010).

Helsinki University of Technology

Laboratory of Media Technology

Position	Full-time doctoral student , 2004-2007. Research assistant , 2003-2004.
Advisor	Professor Lauri Savioja

Remedy Entertainment, Ltd. (Espoo, Finland)

Position	Technical Consultant , 2010-present. Senior Programmer , 2001-2006. Programmer 1997-2001.
Tasks	<p>Alan Wake (www.alanwake.com), a computer game for the Xbox 360 and PC platforms, published by Microsoft Game Studios. Implementation and consulting on graphics algorithms, particularly lighting and shadowing, volumetric scattering, etc.</p> <p>Max Payne 2 (2003), a three-dimensional computer game. Design and implementation of distributed, high-quality lighting simulation software.</p> <p>Max Payne (2001), a three-dimensional computer game. Design and implementation of the software tool used for modeling, texturing, lighting, and scripting the entire game. Notable features include Boolean operations on meshes. Design and implementation of a distributed, hardware accelerated lighting simulation software.</p> <p>Final Reality (1997), lead programmer. A freeware benchmark suite for measuring the graphics performance of PCs. This project spun off Futuremark Ltd., makers of the 3DMark benchmarks. Tens of millions of copies were distributed.</p>
Notes	The two Max Payne games have sold in excess of 7 million copies worldwide . See www.maxpayne.com for the list of awards received by the games, including numerous "Game of the Year" honors . Alan Wake has sold over 2 million copies worldwide and received critical praise, among others "Game of the Year" from Time Magazine.

Education

D.Sc. (Tech.), 2007, with honors

School	Helsinki University of Technology, Espoo, Finland.
Thesis	"Theory and Algorithms for Efficient Physically-Based Illumination"
Major	Computer Graphics
Minor	Work Psychology and Leadership
Supervisor	Prof. Dr. Lauri Savioja
Opponent	Prof. Dr. Hendrik Lensch

M.Sc. (Tech.), 2004

School	Helsinki University of Technology, Espoo, Finland.
Major	Interactive Digital Media

Minor Mathematics

Matriculation examination, 1996

School Linnankosken lukio, Porvoo, Finland.
Performance 5 laudatur, 1 eximia cum laude approbatur
(nationwide ~99.9th percentile that year).

Professional activities

Editorial board member in

ACM Transactions on Graphics

Journal of Computer Graphics Techniques (JCGT)

International Program Committee member

Papers co-chair for High Performance Graphics 2013

EUROGRAPHICS 2013

ACM SIGGRAPH 2012

ACM SIGGRAPH 2011

(Declined invitation for ACM SIGGRAPH Asia 2011, scheduling conflict)

EUROGRAPHICS 2010

Eurographics Symposium on Rendering 2008, 2009, 2010, 2012, 2013

Pacific Graphics 2008

IEEE Symposium on Interactive Ray Tracing 2008

SIGGRAPH Symposium on Interactive 3D Graphics and Games 2008

Paper Referee

ACM SIGGRAPH 2006-2013, ACM SIGGRAPH Asia 2008-2010, Eurographics 2005-2009, Computer Graphics Forum 2006, Eurographics Symposium on Rendering 2006-2007, Pacific Graphics 2006, IEEE Transactions on Visualization and Computer Graphics 2007, IEEE Transactions on Multimedia 2008, International Journal on Computer Vision 2013, Visual Computer 2013.

Other

Sketches and Posters juror, SIGGRAPH 2007.

Courses juror for SIGGRAPH 2006, SIGGRAPH 2007.

Teaching experience

PhD Students

Mr. Miika Aittala (January 2011-)

Mr. Markus Kettunen (February 2013-)

Mr. Ari Silvennoinen (May 2013-)

Classes taught

Responsible for computer graphics education at Aalto University since fall 2012. Includes introductory (T-111.4310) and advanced (T-111.5310) classes. Both have received highly favorable anonymous student reviews.

MIT EECS 6.837 Introduction to Computer Graphics, fall 2009. Average anonymous student reviews: 6.3 of 7. According to MIT EECS administration, the class has not received higher anonymous student assessments.

M.Sc. theses supervised

Mr. Ari Silvennoinen (University of Helsinki), "All-Frequency Pre-computed Light Transport Using a Frequency Factorization of Incident Illumination", 2006.

Mr. Olli Etuaho (Tampere University of Technology), "Image Quality Metrics for Stochastic Rasterization", 2012.

B.Sc. theses supervised

Mr. Marko Rintamäki (Aalto), 2013

Mr. Lauri Pullinen (Aalto), 2013

Other

Teaching assistant on the Seminar on Computer Graphics, Helsinki University of Technology, 2002-2006.

Half-day course "Pre-Computed Radiance Transfer: Theory and Practice" at SIGGRAPH 2005, with Jan Kautz (University College, London) and Peter-Pike Sloan (Microsoft Corporation).

Languages

Finnish (excellent)
English (very good)
Swedish (fair)
German (rudimentary)
French (rudimentary)

Awards

NVIDIA Fellowship, consisting of USD 25 000 in research funding, 2006-2007.