

CURRICULUM VITAE

DR. RER. NAT. JENS SCHNEIDER



PERSONAL DETAILS

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Date of Birth: 11.Nov.1975
Location of Birth: Aachen, NRW, Germany
Marital Status: Single
Nationality: German

ACADEMIAE

19.May.2009 Promotion
Thesis: "Efficient Methods for the Display of highly detailed Models in Computer Graphics", Supervisor: Prof. Dr. R. Westermann, Technische Universität München, Germany
Degree: Dr. rer. nat.
Grade: "sehr gut (magna cum laude)" (1,2)

11.May.2004 Diploma (M.Sc. equivalency) in Computer Science
Thesis: "Kompressions- und Darstellungsmethoden für hochaufgelöste Volumendaten" („Compression and Rendering Methods for highly detailed Volume Data"), Supervisor: Prof. Dr. R. Westermann, Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen, NRW, Germany
Degree: Diplom Informatiker (Dipl. Inform.)
Grade: "sehr gut" (1,2)

WORKING EXPERIENCE

10+ yr Working experience with standard Applications (Microsoft Office, Adobe Acrobat, LaTeX, etc.)

8+ yr Working experience in C/C++. Additional proficiency in x86 Assembler, Pascal, Lisp, Haskell, HTML, etc.

8+ yr Working experience in Computer Graphics and Visualization

8+ yr Working experience in the OpenGL Graphics API

5+ yr Experience in data compression, especially in GPU-friendly, asymmetric coding schemes

3+ yr Working experience in the WIN32 API, including parallelization and multi-threading

2.5 yr Working experience in the DirectX10 Graphics API

3 months Internship at SurgiTAIX, a spin-off company of the Helmholtz-Institute for biomedical technology at the RWTH Aachen. Focus: Development of the OrthoTAIX surgical planning tool for full knee-prosthesis and hip prosthesis operations.

SCHOOL AND CIVIL SERVICE

1986-1995 Stiftisches Gymnasium, Düren, NRW, Germany
Degree: Abitur (High School equivalency)
Grade: 2,0

1995-1996 Civil Service, Deutsches Rotes Kreuz, Düren, NRW, Germany

ADDITIONAL QUALIFICATIONS

Languages German – native Speaker
 English – fluent
 Swedisch – advanced knowledge
 French – basic knowledge

PERSONAL INTERESTS

Reading Favorite authors: Philip K. Dick, Kurt Vonnegut, Neil Gaiman, Henning Mankell
 Some of the books read this year:
 “A Man Without a Country”, Kurt Vonnegut
 “Slaughterhouse-Five”, Kurt Vonnegut
 “Welcome to the Monkey House”, Kurt Vonnegut
 “A Scanner Darkly”, Philip K. Dick
 “Italienska Skor”, Henning Mankell
 “Do Androids Dream of Electric Sheep”, Philip K. Dick
Other Gathering (and remembering) eclectic pieces of historical information
 History in general

TEACHING ACTIVITIES

Seminars Organization and mentoring of 13 seminars (each with about 15 students) with Computer Graphics and Visualization related topics.
Exercises Organization and mentoring the exercises of the lecture “Diskrete Strukturen” (Discrete Mathematics undergraduate course)
 Tutored exercises “Programming in OCaml”, “Interactive Image Synthesis”, “Programming in Modula-3”
Theses Supervised about 30 bachelor’s, master’s, and diploma theses, as well as student’s research projects

REVIEWING ACTIVITIES & CONFERENCE PLANNING

Conferences ACM SIGGRAPH; ACM SIGGRAPH Asia; Eurographics; IEEE Visualization; Computer Graphics Forum; Pacific Conference on Computer Graphics and Applications; IEEE Pacific Visualization Symposium; IEEE Transactions on Visualization and Computer Graphics; International Conference on Vision, Modelling, and Visualization; WSCG International Conference on Computer Graphics; Eurographics / IEEE Symposium on Visualization; Eurographics Workshop on Natural Phenomena; Elsevier Computer & Graphics; The Visual Computer
Conference Planning Conference and Program co-chair of Eurographics Workshop on Natural Phenomena 09
 Poster Chair Eurographics 09

AWARDS

2005 IEEE Visualization Contest first price
2006 IEEE Visualization Contest first price

PUBLICATIONS

Interactive Geometry Decals

J. Schneider, J. Georgii, R. Westermann

In Proc. Conference on Vision, Modeling, and Visualization (VMV) 2009, to appear

Methods for the efficient Display of highly detailed Models in Computer Graphics

J. Schneider

Dissertation, Technische Universität München, Germany, <http://mediatum2.ub.tum.de/node?id=795261>

GPU-Based Real-Time Discrete Euclidean Distance Transforms With Precise Error Bounds

J. Schneider, M. Kraus, R. Westermann

In Proc. International Conference on Computer Vision Theory and Applications (VISAPP) 2009, pp 435—442

Efficient Geometry Compression for GPU-based Decoding in Realtime Terrain Rendering

C. Dick, J. Schneider, R. Westermann

Computer Graphics Forum, Vol. 28, No. 1, pp 67—83, 2009

Interactive Visual Exploration of Unsteady 3D Flows

K. Bürger, J. Schneider, P. Kondratieva, J. Krüger, R. Westermann

In Proc. EG / IEEE VGTC Symposium on Visualization (EUROVIS) 2007, pp 251—258

Real-Time Editing, Synthesis, and Rendering of Infinite Landscapes on GPUs

J. Schneider, T. Boldte, R. Westermann

In Proc. Conference on Vision, Modeling, and Visualization (VMV) 2006, pp 145—152,394

ClearView: An Interactive Context Preserving Hotspot Visualization Technique

J. Krüger, J. Schneider, R. Westermann

IEEE Transactions on Visualization and Computer Graphics, Vol. 12, No. 5, pp 941—948, 2006

Advanced Volume Rendering Techniques for Medical Applications

J. Georgii, J. Schneider, J. Krüger, R. Westermann, M. Eder, L. Kovacs

5. Jahrestagung der Deutschen Gesellschaft für Computer- und Roboterassistierte Chirurgie (CURAC), 2006

GPU-Friendly High-Quality Terrain Rendering

J. Schneider, R. Westermann

Journal of WSCG, Vol. 14, pp 49—56, 2006

Compression and Rendering of Iso-Surfaces and Point Sampled Geometry

J. Krüger, J. Schneider, R. Westermann

Visual Computer 2006, Vol. 22, No. 8, pp 517—530, August 2006

DuoDecim - A Structure for Point Scan Compression and Rendering

J. Krüger, J. Schneider, R. Westermann

In Proc. EG/IEEE Symposium on Point-Based Graphics 2005, pp 99—107,148

High Quality Real-Time Volume Rendering for Time-Dependent Medical Data

J. Schneider, J. Krüger, R. Westermann, S. Nekolla, M. Schwaiger

3. Jahrestagung der Deutschen Gesellschaft für Computer- und Roboterassistierte Chirurgie (CURAC), 2004

Compression Domain Volume Rendering

J. Schneider, R. Westermann

In Proc. IEEE Visualization 2003, pp 293—300

Kompressions- und Darstellungsmethoden für hochaufgelöste Volumendaten

J. Schneider

Diploma Thesis (in English), Rheinisch-Westfälische Technische Hochschule Aachen (RWTH), Germany

Interactive Volume Illustration

Z. Nagy, J. Schneider, R. Westermann

In Proc. Conference on Vision, Modeling and Visualization 2002, pp 497—504

Towards Real-Time Visual Simulation of Water Surfaces

J. Schneider, R. Westermann

In Proc. Conference on Vision, Modeling and Visualization 2001, pp 211—218, 525