

UNIVERSITY OF LOUISIANA AT LAFAYETTE

The Center for Advanced Computer Studies
Lafayette, LA 70504-4330
Vita

I. PERSONAL DATA

Name: Dirk Reiners
Address: 213 Amelia St., Lafayette, LA 70506
Phone: 337-326-3797
e-mail: reiners@cacs.louisiana.edu
Homepage: www.dirkreiners.com
Birth date/place: November 17th, 1968, Bergisch Gladbach, Germany
Citizenship: German

II. EDUCATION

Technical University of Darmstadt

Dr.-Ing., Jun 2002

OpenSG: A Scene Graph System for Flexible and Efficient Realtime Rendering for Virtual and Augmented Reality Applications

Grade: Mit Auszeichnung (with distinction)

(The possible grades in the German system are "Mit Auszeichnung", "Sehr Gut", "Gut", "Bestanden", with "Mit Auszeichnung" being the best.)

Computer Science Diploma (comparable to USA's M.Sc.), Dec 1994

final work created during a 6 month visit to the National Center for Supercomputing Applications (NCSA), Champaign-Urbana, IL

High-Quality Realtime Rendering for Virtual Environments

Grade: 1.09, 2nd best of the year

(The numeric scale in the German system goes from 1 to 5, with 1 being the best.)

Friedrich-Alexander-University Erlangen-Nuremberg

Computer Science Vordiplom (comparable to B.Sc.), Oct 1992

III. ACADEMIC EXPERIENCE

- 08/06 – Assistant Professor in the Center for Advanced Computer Studies
University of Louisiana, Lafayette
- 10/03 – 08/06 Assistant Professor in Computer Science
Faculty Member of the Human-Computer Interaction Graduate Program
Iowa State University
- 03/04 – 08/06 Adjunct Assistant Professor, Electrical and Computer Engineering
Iowa State University
- 01/05 – 08/06 Faculty Member of the Information Assurance Center
Iowa State University

- 08/98 – 08/03 Adjunct Lecturer
 Technical University Darmstadt
- 03/94 – 11/94 Visiting Scientist
 National Center for Supercomputing Applications, Univ. of Illinois at Urbana-Champaign

IV. INDUSTRIAL AND OTHER NON-ACADEMIC EXPERIENCE

- 02/00 – Technical Director of the OpenSG Forum
 Center for Computer Graphics, Darmstadt, Germany
- 09/98 – 01/00 Senior Researcher in Virtual Reality Rendering
 Fraunhofer Institute for Computer Graphics, Darmstadt, Germany
- 01/97 – 08/98 Researcher in Augmented Reality
 European Computer-Industry Research Centre, Munich, Germany
- 04/96 – 12/96 Visiting Researcher in Electronic Art
 Advanced Telecommunications Research Institute International, Takanohara, Japan
- 01/95 – 03/96 Researcher in Virtual Reality Rendering
 Fraunhofer Institute for Computer Graphics, Darmstadt, Germany
- 10/92 – 02/94 Research Assistant in Interactive Global Illumination
 Fraunhofer Institute for Computer Graphics, Darmstadt, Germany

Consulting

- 08/08 - John Chance Land Survey, Lafayette, LA
- 05/08 - Realtime Technologies, Munich, Germany
- 02/04 – Infiscape Corporation, Ames, Iowa
- 03/03 Hewlett-Packard Corporation, Boeblingen, Germany
- 10/98 – 05/02 vrcom GmbH, Darmstadt, Germany

V. AWARDS AND HONORS

Best Paper Award at IITSEC 2005 for “Using GPUs for Swarm Simulation”

VI. ACADEMIC AREAS OF SPECIALIZATION

Teaching- Courses Developed / Redesigned

1. UL CMPS 415: Computer Graphics
2. UL CMPS 453: Software Methodologies

3. UL CMPS 553: Software Methodologies
4. ISU ComS/HCI 657: Advanced Topics in Computer Graphics (F2004, F2005) *Also offered as distance education*

Teaching - Courses Co-Taught

1. UL CMPS 427: Advanced Game Development (S2008)
2. ISU ComS 486: Fundamental Concepts in Computer Networking (S2006)
3. ISU ComS 228: Introduction to Data Structures (S2004, F2004)

Student Evaluations

Dr. Reiners consistently scored above the department average in all his student evaluations. Student comments on his competence and ability to convey complex concepts are very positive.

Research

Dr. Reiners' research interests orbit around the topic of efficient display of and interaction with large data sets and designing software that makes this accessible for developers. This includes hardware components for large, immersive, high-resolution displays that actually have enough pixels to convey the information hidden in large data sets, as well as software components that hide the complexity of driving a large, nowadays mostly distributed across a cluster, display system.

Selected research projects

1. Virtual Oil Rig Training System (2009 –)
2. Virtual Reality Welder Training (2007 – current)
3. Taming the Cloud: Methods and systems for visualizing extremely large point datasets (2007-current)
4. Interactive Visualization and Analysis of Large-Scale Graphs for Biological Network Modeling (2006 – current)
5. OpenSG: A Next-Generation Scenegraph System (2000 - current)
6. Performance Evaluation of Visualization vs. Immersive Environments, in collaboration with Carolina Cruz-Neira, Professor and Stanley Chair in Interdisciplinary Engineering, Industrial and Manufacturing Systems Engineering (2004 - 2006)
7. Using Clusters for Large Data Volume Rendering, in collaboration with Chris Harding, Assistant Professor in Geology and Human-Computer Interaction (2004 - 2006)
8. Using Virtual Reality for Painter Training (2005-2006)
9. The HEyeWall: A very high-resolution display wall (2001 – 2003)

VII. GRANTS AND CONTRACTS

Funded

1. **Reiners, D.** *Energy Infusion*. \$400,000. Louisiana Workforce Authority. January 2009 – December 2010

2. **Reiners, D.:** *Taming the Cloud: Immersive Rendering Techniques for Very Large Discretely Sampled Datasets.* \$48,400, University of Louisiana ITI Program. August 2008 – July 2009
3. Neigel, J., **Reiners, D.:** *An Innovative Approach to Protein Function Identification.* \$70,000, University of Louisiana ITI Program. August 2008 – July 2009
4. **Reiners, D.,** Grier, R.: *Using Autostereoscopic Displays for Submarine Operations,* \$150,000, NAVY STTR Phase 2. January 2008 – June 2009
5. **Reiners, D.,** Borst, C., Chambers, T.: *Virtual Reality Welder Training.* \$471,000. Louisiana Workforce Authority. October 2007 – December 2009
6. Neigel, J., **Reiners, D.:** *An Innovative Approach to Protein Function Identification.* \$64,000, University of Louisiana ITI Program. August 2007 – July 2008
7. **Reiners, D.:** *Taming the Cloud: Immersive Rendering Techniques for Very Large Discretely Sampled Datasets.* \$46,000, University of Louisiana ITI Program. August 2007 – July 2008
8. Cruz-Neira, C., **Reiners, D.,** e.a.: *3rd Generation Omni-Directional Treadmill Immersive Simulator.* \$3,100,000. Army Research Labs. August 2007 – August 2010
9. Dickerson, J., **Reiners, D.,** Wuertele, E.: *Interactive Visualization and Analysis of Large-Scale Graphs for Biological Network Modeling.* \$808,353. National Science Foundation. August 2006 – August 2009
10. **Reiners, D.,** Grier, R.: *Using Autostereoscopic Displays for Submarine Operations,* \$70,000, NAVY STTR Phase 1. August 2006 – March 2007
11. **Reiners, D.,** *3D Paint Simulation.* \$147,816. Deere & Company. August 2006 – August 2008 (*funded but canceled due to relocation to Louisiana*)
12. **Reiners, D.,** *Using Virtual Reality for Painter Training.* \$80,000. Deere & Company. May 2005-May 2006
13. Oliver, J., Cruz-Neira, C., Vance, J., Luecke, G., **Reiners, D.,** Harding, C., Bryden, M., and Kelkar, A. *Synthetic Environments as Enabling Technology for Product Development Phase 4.* \$1,900,000. Deere & Company. Jan 2005-Dec 2007
14. **Reiners, D.,** *Profiling and Optimization of Interactive 3D Graphics Applications Based on Scenegrph Systems.* \$25,000. Carver Trust Grant. May 2004 – May 2005
15. **Reiners, D.,** Harding, C., *Distributed Volume Rendering for High-Quality Display and Interaction with Large Data Sets.* \$18,000. University Research Grant. May 2004 – May 2005
16. **Reiners, D.,** *Evolving VRJuggler for Production Use.* \$23,000. IPRT TCAP Grant. Jan 2004 – July 2006
17. **Reiners, D.,** *The HEyeWall: A Very High-Resolution Display Wall.* \$800,000. Fraunhofer Society. Oct 2001-Feb 2003
18. **Reiners, D.,** Mueller, S., e.a. *OpenSG Plus.* \$3,000,000. BMBF Virtual and Augmented Reality Call. Feb 2001 – Dec 2003
19. Mueller, S., **Reiners, D.,** Klinker, G., Friedrich, W., e.a., *Arvika: Augmented Reality for Development, Production and Servicing,* \$20,000,000, BMBF Leitprojekt, Jul 1999 – Jul 2003
20. **Reiners, D.,** *Interactive Environment Map Generation,* \$40,000, Volkswagen, Mar 1999 – Sep 1999
21. **Reiners, D.,** Zachmann, G., *Virtual Seating Buck and Flow Visualization,* \$100,000, BMW, Jan 1995 – Nov 1995

22. **Reiners, D.**, Zachmann, G., Fruehauf, T., *Direct Injection Diesel Engine Visualization*, \$80,000, Volkswagen, Mar 1995 – Jan 1996
23. Mueller, S., **Reiners, D.**, Zachmann, G., e.a., *Virtual Design 2*, \$2,000,000, Fraunhofer IGD/vrcom, Jan 1995 – May 1999

Equipment donations

(approximate value)

- HP SVA Cluster, 5 nodes. September 2005 (\$50,000)
- Boom 3C, BMW, September 1995 (\$150,000)

VIII. TECHNICAL PUBLICATIONS AND PRESENTATIONS

Journals

1. **Dirk Reiners**: “*Climbing Longs Peak: Get Ready To Start!*” in IEEE Computer Graphics and Applications, August 2007
2. Miguel Lozano, Pedro Morillo, Daniel Lewis, **Dirk Reiners**, Carolina Cruz-Neira: “*A Distributed Framework for Scalable Large-Scale Crowd Simulation*”, in Springer Lecture Notes in Computer Science, Volume 4563/2007, Pages 111-121
3. Bryan Walter, **Dirk Reiners**, Jim Oliver, Adrian Sannier : “*Calculating Digital Pheromones with the GPU: Enabling Efficient UAV Swarm Control*” in The Journal of Defense Modeling and Simulation: Applications, Methodology, Technology (JDMS), Volume 3, Issue 3, July 2006, Pg. 167-176
4. **Dirk Reiners** : “*Open Source Tools for Virtual Environments*” in Novatica - Journal of the Asociación de Técnicos de Informática, Spain, May 2006
5. **Dirk Reiners** : “*Herausforderungen an moderne Szenengraphsysteme am Beispiel OpenSG*” in Informatik-Spektrum, Springer-Verlag Heidelberg, Dec 2004
6. **Dirk Reiners**, Dieter Fellner, Reinhard Klein, Jan Kautz : “*Special Issue on the OpenSG Symposium and OpenSG Plus*” in Computers & Graphics, Elsevier, Vol. 28, No. 1, Feb 2004
7. Marcus Roth, Gerrit Voss, **Dirk Reiners** : “*Multi-threading and clustering for scene graph systems*” in Computers & Graphics, Elsevier, Vol. 28, No. 1, Feb 2004
8. Klinker, Gudrun, Stricker, Didier, **Reiners, Dirk** : “*Optically based direct manipulation for augmented reality*” in Computers & Graphics, Elsevier, Volume 23, Number 6, Dec 1999

Refereed Conference Proceedings Publications

1. Jan Springer, Stephan Beck, Felix Weiszig, **Dirk Reiners**, Bernd Froehlich: “*Advanced Multi-Frame Rate Rendering and Display*”, in IEEE Virtual Reality 2008
2. Jan Springer, Stephan Beck, Felix Weiszig, **Dirk Reiners**, Bernd Froehlich: “*Multi-Frame Rate Rendering and Display*”, in IEEE Virtual Reality 2007
3. Gerrit Voss, **Dirk Reiners**: “*Towards a flexible back-end for scenegraph-based rendering systems*” In Proceedings of the 4th international Conference on Computer Graphics and Interactive Techniques in Australasia and Southeast Asia (Kuala Lumpur, Malaysia, November 29 - December 02, 2006). GRAPHITE '06. ACM Press, New York, NY

4. Marcus Roth, **Dirk Reiners** : "*Sorted Pipeline Image Composition* " in Eurographics Workshop for Parallel Graphics and Visualization, Braga, Portugal, May 2006, pg. 119-126
5. Marcus Roth, Patrick Riess, **Dirk Reiners** : "*Load Balancing on Cluster-Based Multi Projector Display Systems*" in WSCG 2006, Plzen, Czech Republic, Jan 2006
6. Bryan Walter, **Dirk Reiners**, Adrian Sannier : "*Using GPUs for Swarm Simulation*" in Interservice/Industry Training, Simulation & Education Conference (IITSEC) 2005, Orlando, FL, Nov 2005 ****Winner of the Best Paper Award****
7. Adam Oline, **Dirk Reiners** : "*Exploring three-dimensional visualization of intrusion detection system alerts and network statistics*" in CCS Workshop on Visualization and Data Mining for Computer Security (VIZSEC 2005), Minneapolis, Oct 2005
8. **Dirk Reiners**, Steven Pautz : "*Monocular Depth Perception from Motion: A Study Proposal*" in IEEE Virtual Reality Conference - Emerging Display Technologies Workshop, Bonn, Mar 2005
9. Shailesh Kumar, **Dirk Reiners**, Jim Oliver : "*Interactive Scenegrph Performance Analysis, Diagnosis, and Enhancement*" in ASME 2005 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC), Long Beach, California, USA, Sep 2005
10. Kresse, Wolfram, **Reiners, Dirk**, Knoepfle, Christian : "*Color-Consistency in Multi-Projector Display System Systems : The HEyeWall and The Digital CAVE*" in ACM Immersive Projection Technology Workshop / Eurographics Virtual Environment Workshop (IPT/EGVE) 2003, ACM Press, Zurich, May 2003
11. Roth, Marcus; **Reiners, Dirk**; Voß, Gerrit; Behr, Johannes: "*Flexible and Opaque Clustering Support for Scene Graph Systems*" in: IEEE VR Commodity Clusters for Virtual Reality Workshop, 2003
12. Voss, Gerrit, Behr, Johannes, **Reiners, Dirk**, Roth, Marcus : "*A Multi-thread Safe Foundation for Scene Graphs and its Extension to Clusters*" in European Association for Computer Graphics (Eurographics), Fourth Eurographics Workshop on Parallel Graphics and Visualization 2002, ACM Press, Blaubeuren, Sep 2002
13. Kresse, Wolfram, **Reiners, Dirk** : "*Can we trust that Image? Photometric Attributes of Current Projection Systems*" in IEEE Computer Society, Sixth International Immersive Projection Technology Symposium (IPT) 2002, IEEE Computer Society e.a, Mar 2002
14. **Reiners, Dirk**: "*A Flexible and Extensible Traversal Framework for Scenegrph Systems* ", in OpenSG 2002 Workshop, Darmstadt, Online
15. **Reiners, Dirk**; Voss, Gerrit; Behr, Johannes: "*OpenSG: Basic Concepts*", in OpenSG 2002 Workshop, Darmstadt, Online
16. Behr, Johannes, Froehlich, Torsten, Knoepfle, Christian, Kresse, Wolfram, Lutz, Bernd, **Reiners, Dirk**, Schoeffel, Frank : "*The Digital Cathedral of Siena - Innovative Concepts for Interactive and Immersive Presentation of Cultural Heritage Sites*" in International Cultural Heritage Informatics Meeting: Cultural Heritage and Technologies in the Third Millennium, Milano,
17. **Reiners, Dirk**, Stricker, Didier, Klinker, Gudrun, Mueller, Stefan : "*Augmented Reality for Construction Tasks: Doorlock Assembly*" in Augmented Reality : Placing artificial objects in real scenes, A K Peters, Ltd, San Francisco
18. **Reiners, Dirk** : "*High-Quality High-Performance Rendering for Multi-Screen Projection Displays*" in 3. International Immersive Projection Technology Workshop, Springer-Verlag, Stuttgart, Mar 1999

19. Stricker, Didier, Klinker, Gudrun, **Reiners, Dirk** : "*A Fast and Robust Line-based Optical Tracker for Augmented Reality Applications*" in Augmented Reality : Placing artificial objects in real scenes, A K Peters, Ltd., San Francisco,
20. Klinker, Gudrun, Stricker, Didier, **Reiners, Dirk** : " *Augmented Reality: A Balancing Act Between High Quality and Real-Time Constraints*" in Proc. 1rst International Symposium on Mixed Reality (ISMR'99): Y. Ohta and H. Tamura (eds.), "Mixed Reality - Merging Real and Virtual Worlds", 1999
21. Klinker, Gudrun, Stricker, Didier, **Reiners, Dirk** : "*An Optically Based Direct Manipulation Interface for Human-Computer Interaction in an Augmented World*" in Eurographics Virtual Environments Workshop (EGVE) 1999
22. Stricker, Didier, Klinker, Gudrun, **Reiners, Dirk** : "*The Use of Reality Models in Augmented Reality Applications*" in 3D Structure from Multiple Images of Large-Scale Environments : European Workshop, SMILE'98, Springer Verlag, Berlin,
23. Fan Dai, Wolfgang Felger, Thomas Fruehauf, Martin Goebel, **Dirk Reiners**, Gabriel Zachmann : "*Virtual Prototyping Examples for Automotive Industries*" in Virtual Reality World '96, Computerwoche Verlag, Stuttgart

Book Chapters

1. **Reiners, Dirk**, Cruz-Neira Carolina: "*Software tools for displays*" in Peddie e.a., Handbook of Visual Display Technology, to be published in 2009
2. **Reiners, Dirk**: "*Virtual Training for Industrial Applications*" in Schmorow, Cohn, Nicholson, The Handbook of Virtual Environment Training: Understanding, Predicting and Implementing Effective Training Solutions for Accelerated and Experiential Learning, to be published 2008
3. Cruz-Neira, Carolina, **Reiners, Dirk**: "*Virtual Environment Displays*" in Schmorow, Cohn, Nicholson, The Handbook of Virtual Environment Training: Understanding, Predicting and Implementing Effective Training Solutions for Accelerated and Experiential Learning, to be published 2008
4. Klinker, Gudrun, Stricker, Didier, **Reiners, Dirk** : "*Augmented Reality for Exterior Construction Applications*" in Barfield, W., Caudell, T., Fundamentals of Wearable Computers and Augmented Reality, Lawrence Erlbaum Press, 1999

Citations

Google Scholar currently finds about 300 citations of the publications in my list, 5 of my conference papers are cited more than 15 times each.

Invited Papers at Conferences

1. "*OpenSG – The Other Open Source Scenegraph*" at The third conference on Applied Virtual Reality (AVR III), Gothenburg, Sweden, May 2004
2. "*Current Trends in Display Hardware and Their Effect On Scene Graph Systems*" at the 2nd VR/AR in Product Development Workshop, May 2003
3. "*OpenSG - A Modern Scene Graph for VR Applications*" at Virtual Reality and its Applications in Industry (VRAI) Conference 2002, Hangzhou, China, Apr 2002.

Software Licenses

1. Virtual Design 2, currently commercialized by vrcom. 1995-present
2. OpenSG, LGPL Open Source License, 2000-present

Refereed Courses and Tutorials at Conferences

1. *Don't be a WIMP: A 60-Second Introduction to Augmented and Virtual Reality*, at ACM SIGGRAPH 2008
2. *Immersive and Augmented Reality with X3D*, at Web3D 2008
3. *Open Source Development Toolkits*, part on *OpenSG*. IEEE VR. March 2002.
4. *OpenSG. Cave Programming Workshop*, Aalborg, Oct 2002.

Panels at Conferences

1. "*Beyond the polygon horizon: New trends in interactive rendering.*" at Eurographics 2002 Conference, Saarbrücken, Sep 2002 (Chair and Panelist)
2. "*The Elephants and the Ants: Will Large Projectors be Replaced By Many Small Ones?*" at Immersive Projection Technology Workshop 2002, Orlando, Mar 2002 (Chair)
3. "*Virtual Reality Systems – Standards vs. Variety*" at Immersive Projection Technology Workshop 2001, Stuttgart, Mar 2001 (Panelist)

Refereed Exhibits at Conferences

1. Oehme, Olaf; Wiedenmaier, Stefan; Stricker, Didier; **Reiners, Dirk**: "Distance Collaboration for Interactive Industrial Service - Building a Hotline with AR Features and AR Agents" at IEEE and ACM International Symposium on Augmented Reality (ISAR) 2000
2. Fels, Sidney; **Reiners, Dirk**; Mase, Kenji: "*Iamascope: An Interactive Kaleidoscope*" in Visual Proceedings of SIGGRAPH '97: The Electric Garden, pages 76-77, 1997
3. Sommerer, Christa; Mignonneau, Laurent; **Reiners, Dirk**, "*MIC Exploration Space*," in Siggraph'96 Visual Proceedings(New York: ACM Siggraph, 1996) p. 17.

IX. TECHNICAL PRESENTATIONS

Session Chair

1. IEEE VR 2008, Mar 2008
2. EGPGV 2007, May 2007
3. IEEE VR 2007, Mar 2007
4. IEEE VR 2005, Mar 2005
5. IPT 2004, May 2004
6. EGPGV 2004, Jun 2004
7. IPT/EGVE 2003, May 2003

Invited Presentations

1. "*Volume Rendering – State of the Art*" Keynote at V. Image Processing Workshop, CIMAT, Guanajuato, Mexico, August 2008
2. "*Current Developments in Graphics Hardware*" Keynote at V. Image Processing Workshop, CIMAT, Guanajuato, Mexico, August 2008

3. "*OpenSG – The Other Open Source Scenegraph*" at The third conference on Applied Virtual Reality (AVR III), Gothenburg, Sweden, May 2004
4. "*Current Trends in Display Hardware and Their Effect On Scene Graph Systems*" at the 2nd VR/AR in Product Development Workshop, May 2003
5. "*Scene Graph Systems: Design Challenges*" at University of Paderborn, Feb 2003
6. "*Design Challenges for Modern Scene Graph Systems*" at University of Erlangen, Feb 2003
7. "*OpenSG: A Modern, Extensible Scene Graph*" at the VRGeo Forum of Fraunhofer IMK, Dec 2002
8. "*Design Challenges for Modern Scene Graph Systems*" at University of Tübingen, Nov 2002
9. "*OpenSG - A Modern Scene Graph for VR Applications*" at Virtual Reality and its Applications in Industry (VRAI) Conference 2002, Hangzhou, China, Apr 2002.
10. "*OpenSG Crash Course*" at Bonn University, Apr 2002
11. "*OpenSG*" at Max-Planck-Institute for Computer Graphics, Mar 2002
12. "*OpenSG*" at Stuttgart University, Oct 2001
13. "*VR und AR Aktivitaeten am Fraunhofer IGD*" Keynote at the 2nd Virtual Reality Center Aachen Workshop, July 2001
14. "*The Development of 3D Graphics in Computer Games*" at Darmstadt University, Dec 2000, and at Iowa State University, Dec 2003

Conference Presentations

1. Paper presentation at IEEE Virtual Reality Conference - Emerging Display Technologies Workshop, Bonn, Mar 2005
2. Paper presentation at ACM Immersive Projection Technology Workshop / Eurographics Virtual Environment Workshop (IPT/EGVE) 2003, ACM Press, Zurich, May 2003
3. Paper presentation at IEEE VR Commodity Clusters for Virtual Reality Workshop, 2003
4. Paper presentation at European Association for Computer Graphics (Eurographics), Fourth Eurographics Workshop on Parallel Graphics and Visualization 2002, ACM Press, Blaubeuren, Sep 2002
5. Paper presentation at IEEE Computer Society, Sixth International Immersive Projection Technology Symposium (IPT) 2002, IEEE Computer Society e.a, Mar 2002
6. Paper presentation at OpenSG 2002 Workshop, Darmstadt, Online
7. Paper presentation at Augmented Reality : Placing artificial objects in real scenes, A K Peters, Ltd, San Francisco,
8. Paper presentation at 3. International Immersive Projection Technology Workshop, Springer-Verlag, Stuttgart, Mar 1999

Exhibits at Conferences / Trade Shows

1. Distributed Ray Tracing over LONI, Supercomputing 2007, Reno
2. Virtual Reality for Painter Training, ISU HCI Open House, 2006
3. OpenSG Forum Booth, SIGGRAPH, 2003
4. OpenSG Forum Booth, SIGGRAPH, 2002

5. OpenSG Forum Booth, SIGGRAPH, 2001
6. OpenSG Plus NURBS, Volkswagen Technology Show, 2002
7. OpenSG Plus, BMBF Virtual and Augmented Reality Showcase, 2001 - 2002
8. Augmented Reality for Construction Tasks: Doorlock Assembly, Hannovermesse, 1997
9. Volkswagen Direct Injection TDI, Detroit Motorshow Frankfurt, 1996
10. Volkswagen Direct Injection TDI, International Motorshow Frankfurt, 1995
11. Volkswagen Virtual Reality Showcase, International Motorshow Frankfurt, 1994

X. EXTENSION/OUTREACH ACTIVITIES

Initiator and Organizer of the 1st Lafayette Digital Entertainment Conference (April 20th 2008)

Ongoing consulting with German Virtual Reality company

Ongoing consulting with Louisiana-based surveying company

Speaker at the SESAME Workshop 2008

Member of the Research Advisory Council of the Louisiana Accelerator Center

Speaker at the ISU Presidential Lecture 2006

Ongoing consulting with Iowa-based startup companies

Invited workshop on OpenSG at University of Alaska/Fairbanks (UAF), 2005

XII. GRADUATE AND UNDERGRADUATE STUDENTS

M.S. Theses

2007	Painter training in virtual reality: conceptualization, design, and implementation	Steven Pautz (ISU ComS/HCI)
2006	Semi-Automatic Transfer Function Generation for Non-Domain Specific Direct Volume Rendering	Andy Menz (ISU ComS)
2005	Renaissance: A Procedural Shading Language	Chad Austin (ISU ComS/HCI)
2005	Network Traffic Visualization	Adam Oline (ISU InfAss)

Current Graduate and Undergraduate Students

Ph.D.

Muhieddine ElKaissi (UL CACS)
Steven White (UL CACS)

Christian Odom (UL CACS)
Xiaohua Tang (UL CACS)
Malcolm Hutson (UL CACS)
Marlene Burke (UL Psychology)
Wen-Chieh Chang (ISU ComS/HCI)

Master

Vinay Bayya (UL CACS)
Rajendra Dale (UL CACS)

Undergraduate

Externally Advised Students

Ph.D.

Jan Springer (Bauhaus-Universitaet Weimar, PhD 2008)
Andreas Simon (Universitaet Koblenz-Landau, PhD 2009)

Awards and Honors Obtained by my Students

Louisiana Board of Regents PhD Award:

Malcom Hutson

Louisiana System PhD Award:

Steven White

Honors College:

Alex Allen, Mat Wymore, Yuly Sovorov

Former students

PhD

Daniel Lewis

Master

Steven Pautz, now at iContact, Durham, NC
Adam Oline, now at Department of Energy, Washington, DC
Chad Austin, now at IMVU, Palo Alto, California
Andy Menz

XIII. PROFESSIONAL ACTIVITIES

- Co-Chair for Technical Program (Papers) IEEE VR 2009
- Video Chair for IEEE Virtual Reality 2008
- Area Chair and Reviewer for ISMAR 2008
- Co-Chair and Reviewer for Immersive Projection Technology Workshop (IPT) 2008
- Co-Chair for Software Engineering and Architectures for Realtime Interactive Systems Workshop (SEARIS) at IEEE VR 2008

- Member of the Editorial Board Computers & Graphics, 2008
- Program Committee Member and Reviewer for IEEE Virtual Reality (VR) 2008
- Program Committee Member and Reviewer for ACM VRST 2008
- Program Committee Member and Reviewer for 4th International Symposium on Visual Computing (ISVC) 2008 Special Track on "Visualization and simulation on immersive display devices"
- Program Committee Member and Reviewer for 4th International Symposium on 3D Data Processing, Visualization, and Transmission (3DPVT) 2008
- Program Committee Member and Reviewer for X. Symposium on Virtual and Augmented Reality (SVR) 2008
- Program Committee Member and Reviewer for The International Conference on Intelligent Virtual Environments and Virtual Agents (IVEVA) 2008
- Reviewer for Computer Graphics Forum Magazine 2008
- Reviewer for Simulation Modeling Practice and Theory Magazine 2008
- Reviewer for Web3D 2008
- Reviewer for Eurographics 2008
- Co-Chair for Emerging Display Technologies Workshop (EDT) 2007
- Workshop and Program Co-Chair for the Eurographics Workshop on Parallel Graphics and Visualization (EGPGV) 2007
- Workshops Chair for IEEE Virtual Reality (VR) 2007
- Area Chair for Sixth IEEE International Symposium on Mixed and Augmented Reality (ISMAR) 2007
- NSF Panel Reviewer 2007
- Member of the Editorial Board Computers & Graphics, 2007
- Program Committee Member and Reviewer for IEEE Virtual Reality (VR) 2007
- Program Committee Member and Reviewer for ACM Symposium on Virtual Reality Software and Technology (VRST) 2007
- Program Committee Member and Reviewer for Immersive Projection Technology Workshop (IPT) 2007
- Program Committee Member and Reviewer for Eurographics Workshop on Virtual Environments (EGVE) 2007
- Program Committee Member and Reviewer for International Symposium on Visual Computing (ISVC) 2007
- Program Committee Member and Reviewer for 2nd International Workshop for Mixed Reality User Interfaces: Specification, Authoring, Adaptation (MRUI) 2007
- Program Committee Member and Reviewer for IX. Symposium on Virtual and Augmented Reality (SVR) 2007
- Reviewer for IEEE Computer Graphics and Applications Journal, 2007

- Reviewer for IEEE Transactions on Computers Journal, 2007
- Reviewer for IEEE 3D User Interfaces (3DUI) Conference 2007
- Reviewer for IEEE Visualization Conference (Vis) 2007
- Reviewer for IEEE Information Visualization Conference (InfoVis) 2007
- Reviewer for IEEE Visual Analytics Science and Technology Symposium (VAST) 2007
- Demonstrations Chair for the International Symposium on Mixed and Augmented Reality (ISMAR) 2006
- NSF Panel Reviewer 2006
- Member of the Editorial Board Computers & Graphics, 2006
- Program Committee member and reviewer for IEEE Virtual Reality (VR) 2006
- Program Committee member and reviewer for IVEVA 2006
- Reviewer for IEEE Visualization Conference 2006
- Reviewer for ASME International Design Engineering Technical Conferences & Computers and Information In Engineering Conference 2006
- Reviewer for ASME International Mechanical Engineering Congress and Exposition 2006
- Reviewer for Eurographics 2006
- Reviewer for Pacific Graphics Conference 2006
- Reviewer for IEEE Network Journal 2006
- Reviewer for the INI-GraphicsNet Foundation Proposal Call 2006
- Reviewer for IEEE Computer Graphics and Applications Journal 2006
- Program Committee Member and Reviewer for Immersive Projection Technology Workshop (IPT) 2005
- Program committee member and reviewer for the International Symposium on Mixed and Augmented Reality (ISMAR) 2005
- Member of the Editorial Board Computers & Graphics, 2005
- Reviewer for SIGGRAPH 2005
- Reviewer for IEEE Computer Graphics and Applications Journal 2005
- Reviewer for the ASME Computers and Information in Engineering Conference 2005
- Program Committee Member and Reviewer for Immersive Projection Technology Workshop (IPT) 2004
- Reviewer for the Institute for the Promotion of Innovation by Science and Technology in Flanders, 2004
- Reviewer for the ASME Computers and Information in Engineering Conference 2004
- Reviewer for SIGGRAPH 2004
- Reviewer for IEEE Computer Graphics and Applications Journal, 2004

- Reviewer for Computers & Graphics Journal, 2004
- Reviewer for Eurographics 2004
- Reviewer for Eurographics Symposium on Virtual Environments (EGVE) 2004
- Reviewer for Pacific Graphics 2004
- General Chair 2. OpenSG Symposium, 2003
- Program Committee Member and Reviewer for Immersive Projection Technology Workshop (IPT) 2003
- Program Committee Member and Reviewer for Immersive Workshop on Commodity Clusters for Virtual Reality at IEEE VR 2003
- Editor for Computers & Graphics Special Issue on OpenSG and OpenSG Plus, 2003
- Reviewer for Journal of Aerospace Computing, Information, and Communication, 2003
- Reviewer for Eurographics Conference 2003
- Reviewer for Journal of Landscape and Urban Planning, 2003
- Reviewer for the ASME Computers and Information in Engineering Conference 2003
- Represent VRAC/HCI in “Campus Connections for New Faculty” Event, 2003
- Referee for Student Research Competition during the Atanasoff Symposium, 2003
- Initiator and General Chair 1. OpenSG Symposium, 2002
- Program Committee Member and Reviewer for Web3D Conference 2002
- Program Committee Member and Reviewer for International Symposium on Mixed and Augmented Reality (ISMAR) 2002
- Program Committee Member and Reviewer for International Symposium on Augmented Reality (ISAR) 2001
- Reviewer for Eurographics Workshop on Virtual Environments (EGVE) 2002
- Reviewer for Eurographics Conference 2001
- Reviewer for Eurographics Conference 2000
- Member of IEEE, ACM, and ACM SIGGRAPH and Eurographics professional organizations, 2000 to present
- Demonstrations Chair and Program Committee Member for International Workshop on Augmented Reality (IWAR) 1999
- Reviewer for Eurographics Conference 1999
- Initiator, together with Gudrun Klinker, Stefan Mueller and Reinhold Behringer, International Workshop on Augmented Reality (IWAR) (later renamed to International Symposium on Mixed and Augmented Reality (ISMAR)), 1998

XIV. UNIVERSITY ACTIVITIES

Mentorships

UL

ISU

Honors College (2 undergraduate students/year)

Committees

Departmental Committees

UL

ISU

S2006	Graduate Curriculum Committee
S2006	Grievance Committee
F2005	Graduate Curriculum Committee
S2005	Graduate Curriculum Committee
F2004	Graduate Admission Committee
F2004	Graduate Curriculum Committee
S2004	Graduate Curriculum Committee
F2003	Graduate Curriculum Committee

Program Of Study Committees

UL

CACS: 1 PhD, 1 Master

ISU

Computer Engineering: 4 Ph.D., 2 Master
Computer Science: 1 Ph.D., 2 Master
Mechanical Engineering: 1 Ph.D., 1 Master
Architecture: 1 Master
Art & Design: 1 MFA

At External Universities

Weimar: 1 PhD
Koblenz: 1 PhD