

ROBERT KOOIMA  
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<http://csc.lsu.edu/~kooima>

## 1 EDUCATION

- Ph.D., Electronic Visualization Laboratory (EVL), Dept. of Computer Science, University of Illinois at Chicago (UIC), Chicago, IL 2004–2008  
Dissertation entitled “Planetary-scale Terrain Composition.”
- M.S., Computer Science, University of Iowa, Iowa City, IA 1997–2001  
Thesis entitled “A Framework for Tele-Immersive Application Development.”
- B.S., Computer Science and Mathematics, University of Iowa 1993–1997

## 2 PROFESSIONAL EXPERIENCE

- Assistant Professor, Dept. of Computer Science, Louisiana State University (LSU) 2011–present
- Adjunct Professor, Dept. of Computer Science, Louisiana State University (LSU) 2010–2011
- Post-doctoral Researcher, Center for Computation & Technology (CCT), LSU 2009–2011
- Graduate Research Assistant, EVL, UIC 2004–2008
- Research Associate, Center for Advanced Engineering Environments, Old Dominion University and NASA Langley Research Center, Hampton, VA. 2001–2004
- Research Assistant and Teaching Assistant, University of Iowa 1993–2001

## 3 RESEARCH

### *Articles in Refereed Journals*

- Thomas A. DeFanti, Daniel Acevedo, Richard A. Ainsworth, Maxine D. Brown, Steven Cutchin, Gregory Dawe, Kai-Uwe Doerr, Andrew Johnson, Chris Knox, Robert Kooima, Falko Kuester, Jason Leigh, Lance Long, Peter Otto, Vid Petrovic, Kevin Ponto, Andrew Prudhomme, Ramesh Rao, Luc Renambot, Daniel J. Sandin, Jurgen P. Schulze, Larry Smarr, Madhu Srinivasan, Philip Weber, Gregory Wickham, “The Future of the CAVE,” *Central European Journal of Engineering*, vol. 1, no. 1, pp. 16–37, Springer-Verlag GmbH, November 2, 2010.
- Ge, J., Hutanu, A., Toole, C., Kooima, R., Hossain, I., Allen, G., “An Experimental Distributed Visualization System for Peta-scale Computing,” *Computing in Science & Engineering*, vol. 12, no. 5, pp. 78–82, September/October 2010.
- Hutanu, A., Schnetter, E., Bengner, W., Bentivegna, E., Clary, A., Diener, P., Ge, J., Kooima, R., Korobkin, O., Liu, K., Löffler, F., Paruchuri, R., Tao, J., Toole, C., Yates, A. and Allen, G., “Large Scale Problem Solving Using Automatic Code Generation and Distributed Visualization” In *Scalable Computing: Practice and Experience*, vol. 11, no. 2, pp. 205–220, June 2010.

- Kooima, R., Leigh, J., Johnson, A., Roberts, D., Subbarao, M., DeFanti, T., “Planetary-scale Terrain Composition” In *IEEE Transactions on Visualization and Computer Graphics*, vol. 15, no. 5, pp. 719–733, September/October 2009.
- Gail W. Pieper, Thomas A. DeFanti, Qian Liu, Mason Katz, Phil Papadopoulos, Joseph Keefe, Greg Hidley, Greg Dawe, Ian Kaufman, Bryan Glogowski, Kai-Uwe Doerr, Jurgen P. Schulze, Falko Kuester, Peter Otto, Ramesh Rao, Larry Smarr, Jason Leigh, Luc Renambot, Alan Verlo, Lance Long, Maxine Brown, Dan Sandin, Venkatram Vishwanath, Robert Kooima, Javier Girado, Byungil Jeong, “Visualizing Science: The OptIPuter Project,” In *SciDAC Review*, Spring 2009, vol. 12, pp. 32–41, IOP Publishing in association with Argonne National Laboratory, for the US Department of Energy, Office of Science.
- Peterka, T., Kooima, R., Sandin, D., Johnson, A., Leigh, J., DeFanti, T., “Advances in the Dynalax Solid-State Dynamic Parallax Barrier Autostereoscopic Visualization Display System” In *IEEE Transactions on Visualization and Computer Graphics*, vol. 14, no. 3, pp. 487–499, May-June 2008.
- Ge, J., Sandin, D., Johnson, A., Peterka, T., Kooima, R., Girado, J., DeFanti T., “Point-based VR Visualization for Large-scale Mesh Datasets by Real-time Remote Computation” In the *International Journal of Image and Graphics*, vol. 8, no. 2, pp. 189–207, April 2008
- Leigh, J., Renambot, L., Johnson, A., Jeong, B., Jagodic, R., Schwarz, N., Svistula, D., Singh, R., Aguilera, J., Wang, X., Vishwanath, V., Lopez, B., Sandin, D., Peterka, T., Girado, J., Kooima, R., Ge, J., Long, L., Verlo, A., DeFanti, T., Brown, B., Cox, D., Patterson, R., Dorn, P., Wefel, P., Levy, S., Tolandis, J., Reitzer, J., Prudhomme, T., Coffin, T., Davis, B., Wielinga, P., Stolk, B., Koo, G., Kim, J., Han, S., Kim, J., Corrie, B., Zimmerman, T., Boulanger, P., Garcia, M., “The Global Lambda Visualization Facility: An International Ultra-High-Definition Wide-Area Visualization Collaboratory” In the *International Journal of Future Generation Computer Systems*, Elsevier, 22.8 (2006), pp. 964–971.
- Peterka, T., Sandin, D., Ge, J., Girado, J., Kooima, R., Leigh, J., Johnson, A., Thiebaut, M., DeFanti, T., “Personal Varrier: Autostereoscopic Virtual Reality for Distributed Scientific Visualization” In the *International Journal of Future Generation Computer Systems*, Elsevier, 22.8 (2006), pp. 976–983.

#### *Articles in Refereed Conference Proceedings*

- Saeidi, S., Rizzuto, T., Zhu, Y., and Kooima, R. “Measuring the Effectiveness of an Immersive Virtual Environment for the Modeling and Prediction of Occupant Behavior.” *Proceedings of the First International Symposium on Sustainable Human-Building Ecosystems*, October 5–6, 2015, Pittsburgh, PA, pp. 159–167, American Society of Civil Engineers.
- Cherry, K, Kooima, R., “Multi-pass Gaussian Contact-Hardening Soft Shadows,” in the *Proceedings of the 10th International Conference on Computer Graphics Theory and Applications*, pp. 274–280, Berlin, Germany, March 11–14, 2015.
- Smith, N., Cutchin, S., Kooima, R., Ainsworth, R., Sandin, D., Schulze, J., Prudhomme, A., Kuester, F., Levy, T., DeFanti, T., “Cultural Heritage Omni-Stereo Panoramas for Immersive Cultural Analytics–

From the Nile to the Hijaz,” *8th International Symposium on Image and Signal Processing and Analysis (ISPA)*, 2013, pp. 552–557, IEEE.

- Kooima, R., Prudhomme, A., Schulze, J., Sandin, D., DeFanti, T., “A Multi-viewer Tiled Autostereoscopic Virtual Reality Display,” in the *Proceedings of the 17th ACM Symposium on Virtual Reality Software and Technology*, pp. 171–174, Hong Kong, China, Nov 22–24, 2010.
- J. Ge, R. Kooima, A. Hutanu, “High-Resolution Remote Visualization of Ray-Casted Volume Rendering on GPU Cluster,” Poster, International Conference of High Performance Computing, Network, Storage and Analysis 2010 (SC’10).
- Ullmer, B., Dever, Z., Sankaran, R., Toole, C., Freeman, C., Cassady, B., Wiley, C., Diabi, M., Wallace, A., Delatin, M., Tregre, B., Liu, K., Jandhyala, S., Kooima, R., Branton, C., Parker, R., “Cartouche: Conventions for Tangibles Bridging Diverse Interactive Systems” in *Proceedings of the Fourth International Conference on Tangible, Embedded and Embodied Interaction*, pp. 93–100, Cambridge, MA, January 25–27, 2010.
- Kooima, R., Roberts, D., SubbaRao, M., “Real-time Digital Dome Rendering Techniques and Technologies” in *Proceedings of IPS 2008*, 19th Biennial Conference of the International Planetarium Society, Chicago IL, June 27–July 2, 2008.
- Aguilera, J., Roberts, D., SubbaRao, M., Minerva, C., Nichols, M., Salgado, J.F., Kooima, R., “The SVL, a Working Laboratory Inside a Museum” in *Proceedings of IPS 2008*, 19th Biennial Conference of the International Planetarium Society, Chicago IL, June 27–July 2, 2008.
- Peterka, T., Kooima, R., Girado, J., Ge, J., Sandin, D., DeFanti, T., “Evolution of the Varrier Autostereoscopic VR Display: 2001–2007” in *Electronic Imaging 2007*, pp. 649004–649004. International Society for Optics and Photonics, 2007.
- Peterka, T., Kooima, R., Girado, J., Ge, J., Sandin, D., Johnson, A., Leigh, J., Schulze, J., DeFanti, T., “Dynallax: Solid State Dynamic Parallax Barrier Autostereoscopic VR Display” In *Proceedings of IEEE Virtual Reality*, pp. 155–162, Charlotte, NC, March 10–14, 2007.
- Kostis, H., Kooima, R., Kannenberg, J., “Skin: an Interactive hyperstereoscopic electro installation” in *Electronic Imaging 2007*, p. 64901V. International Society for Optics and Photonics, 2007.
- Tsoupikova, D., Kooima, R., “Passing Excellence, The Interactive Art Visualization Of the Kizhi Ensemble” in the *Proceedings of the CIPA Symposium*, Athens, Greece, October 1–6, 2007.
- Leigh, J., Johnson, A., Renambot, L., Sandin, D., DeFanti, T., Brown, M., Jeong, B., Jagodic, R., Krumbholz, C., Svistula, D., Hur, H., Kooima, R., Peterka, T., Ge, J., Falk, C., “Emerging from the CAVE: Collaboration in Ultra High Resolution Environments” in *Proceedings of the First International Symposium on Universal Communication*, pp. 96–99, Kyoto, Japan, June 14–15, 2007.
- Ge, J., Peterka, T., Kooima, R., Vishwanath, V., Sandin, J., Johnson, A., “A Distributed Volume Rendering Pipeline for Networked Virtual Reality” in *Proceedings of the International Workshop on Network-based Virtual Reality and Tele-Existence (INVITE 2007)*, May 21–23, 2007.

- Kooima, R., Peterka, T., Girado, J., Ge, J., Sandin, D., DeFanti, T., “A GPU Sub-pixel Algorithm for Autostereoscopic Virtual Reality” in *Proceedings of IEEE Virtual Reality 2007*, pp. 131–137, Charlotte, NC, March 10–14, 2007.
- Peterka, T., Kooima, R., Girado, J., Ge, J., Sandin, D., Johnson, A., Leigh, J., Schulze, J., DeFanti, T., “Dynallax: Solid State Dynamic Parallax Barrier Autostereoscopic VR Display” in the *Proceedings of IEEE Virtual Reality 2007*, pp. 155–162, Charlotte, NC, March 10–14, 2007.
- Girado, J., Peterka, T., Kooima, R., Ge, J., Sandin, D., Johnson, A., Leigh, J., DeFanti, T., “Real Time Neural Network-based Face Tracker for VR Displays” in the *Workshop on Trends and Issues in Tracking for Virtual Environments* at IEEE Virtual Reality 2007, Charlotte, NC, March 11, 2007.
- Ge, J., Sandin, D., Johnson, A., Peterka, T., Kooima, R., Girado, J., DeFanti T., “Point-based VR Visualization for Large-scale Mesh Datasets by Real-time Remote Computation” in the *Proceedings of ACM Conference on Virtual Reality Continuum and its Applications*, pp. 43–50, Hong Kong, June 14–17, 2006
- Krumbholz, C., Leigh, J., Johnson, A., Renambot, L., Kooima, R., “Lambda Table: High Resolution Tiled Display Table for Interacting with Large Visualizations” at the Workshop on Advanced Collaborative Environments, Redmond, WA, September 8–9, 2005.

#### *Works Presented*

- Kooima, R., “Panoptic Mars,” at the New Museum Los Gatos, Los Gatos, CA, October 15, 2015–February 14, 2016.
- Kooima, R., “Total Perspective Vortex,” at the New Museum Los Gatos, Los Gatos, CA, October 15, 2015–February 14, 2016.
- Kooima, R., “Total Perspective Vortex,” at the Contemporary Jewish Museum, San Francisco, CA, June 18–September 20, 2015.
- Sandin, D., Kooima, R., Spiegel, L., DeFanti, T., “Particle Dreams in Spherical Harmonics,” at the Filmatic Festival, April 24–April 27, 2014, Minneapolis, MN.
- Sandin, D., Kooima, R., Spiegel, L., DeFanti, T., “Particle Dreams in Spherical Harmonics,” March 29–April 2, 2014, Minneapolis, MN.
- Sandin, D., Kooima, R., Spiegel, L., DeFanti, T., “Particle Dreams in Spherical Harmonics,” Calit2, University of California San Diego, San Diego, CA, January 13–March 11, 2011.
- Kooima, R., Roberts, D., Aguilera, J., “MoonWall,” Adler Planetarium 2009–present, Chicago, IL.
- Tsoupikova, D., Kooima, R., “Passing ‘Place for Games,’” Information Aesthetics Showcase, SIGGRAPH 2009, New Orleans, LA, August 3–7, 2009.
- Kostis, H., Kooima, R., Kannenberg, J., “Skin” Installed at FILE 2007, So Paulo, Brazil.

- Kooima, R., Roberts, D., SubbaRao, M., Aguilera, J., “Mars Transporter.” Installed at Adler Planetarium 2007–present, Chicago, IL.
- Lopez Silva, B., Kooima, R. Schwarz, N., Wolf, L., Donaghy, T., Vanderlinde, K., Willis, S., Sweitzer, J., “Starflight.” Installed at Laboratorio Arte Alameda, Mexico City, Mexico Nov 2006–Feb 2007. Installed at Adler Planetarium, Chicago, IL 2007–present.

### *Electronic Dissemination of Research*

- <https://github.com/rlk/scm>  
Spherical cube map rendering library, GNU GPL v2 license, 2012–2014.
- <https://github.com/rlk/thumb>  
Real-time 3D graphics research codebase, GNU GPL v2 license, 2006–2014.
- <https://github.com/rlk/gigo>  
Gigapixel fast Fourier transform tool, GNU GPL v3 license, 2013.
- <https://github.com/rlk/sht>  
Spherical harmonic transform tools, MIT license, 2013.
- <https://github.com/rlk/envtools>  
Utilities to manipulate spherical images, MIT license, 2013.
- <https://github.com/rlk/hippo>  
Spatial index for 3D stellar catalogs, GNU GPL v3 license, 2013.
- <https://github.com/rlk/util3d>  
C language utility modules for 3D graphics using OpenGL, MIT license, 2010–2013.
- <https://github.com/rlk/lightprobe>  
Interactive HDR lightprobe processing utility, GNU GPL v3 license, 2010–2011.
- <https://github.com/rlk/electro>  
Lua application development environment for cluster-driven tiled displays and VR systems, GNU GPL v2 license, 2006–2011.
- <https://github.com/rlk/snth>  
SSE polyphonic multitimbral MIDI synthesizer, GNU GPL v2 license, 2005–2013.
- <http://csc.lsu.edu/~kooima/articles/genperspective>  
“Generalized Perspective Projection,” 2008.
- <http://csc.lsu.edu/~kooima/articles/medianproj>  
“Median Distance Perspective Projection,” 2007.

### *Proposals as Principal Investigator*

- “Development of the Sensor Environment Imaging (SENSEI) Instrument,” National Science Foundation / University of Illinois at Chicago, 7 April 2015, \$149,446, funded.
- “Lunar Reconnaissance Orbiter Camera,” NASA / Adler Planetarium, 26 July 2013, \$10,000, funded.
- “Solar System Show Rendering,” NASA / Adler Planetarium, 7 September 2012, \$10,000, funded.
- “Lunar Reconnaissance Orbiter Camera,” NASA / Adler Planetarium, 26 March 2012, \$16,000, funded.
- “The Louisiana Sky,” Louisiana Board of Regents, 7 November 2011, \$4,660, funded.

### *Proposals as Co-Principal Investigator*

- “Highway Work Zone Construction Safety Research and Training: A Driving Simulator Study,” PI Yimin Zhu, Louisiana Transportation Research Center, 25 February 2016, \$280,859.00, funded.
- “EXP: Collaborative Research: Learning to Better Function in Multidisciplinary Teams through Purposefully Structured Virtual Experiences,” PI Yimin Zhu, National Science Foundation, 18 December 2015, \$410,238.00, pending.
- “Temporal-Spatial Event-Driven Modeling of Occupant Behavior in Immersive Virtual Environments,” PI Yimin Zhu, Louisiana Board of Regents, 9 November 2015, \$20,000, funded.
- “Investigating volatiles and advancing sedimentology, of soil at Gale Crater, Mars, by applying new photoanalytical methods,” PI Suniti Kumara Karu Walimuni Devage, Louisiana Board of Regents, 14 October 2015, \$750,000, pending.
- “CAVE for Millennial Learners,” PI Yimin Zhu, LSU Student Technology Fee, November 2015, \$131,440, funded.
- “Digital Media Arts and Engineering Lab,” PI Marc Aubanel, Louisiana Board of Regents, 24 October 2014, \$75,297, funded.
- “Many-Thread (GPU) and Many-Core (MIC) Accelerator Equipment for Research and Instruction on Next-Generation Graphics and Scientific Simulation,” PI David Koppelman, Louisiana Board of Regents, 24 October 2014, \$106,380, funded.

### *Proposals as Senior Investigator*

- “CC-NIE Integration: Bridging, Transferring and Analyzing Big Data over 10Gbps Campus-Wide Software Defined Networks,” PI Seung-Jong Park, National Science Foundation, January 2014–December 2015, \$947,860, funded.
- “CC-NIE Network Infrastructure: CADIS—Cyberinfrastructure Advancing Data-Interactive Sciences,” PI Joel Tohline, National Science Foundation, October 2012–December 2014, \$499,758, funded.

- “MRI: Development of Melete: an interaction-oriented, software-rich compute cluster with tangible interface support for collaborative research and the classroom,” PI Brygg Ullmer, NSF, September 2011–August 2015, \$900,000, funded.

### *Professional Participation*

- Technical Session Chair, “PANDA: Panoramas, Displays, and Acquisition,” ACM SIGGRAPH 2012, Los Angeles, CA, August 9, 2012.
- Presentation of “Rendering Planetary Terrains Using Hetrogeneous Data Sets” at IPS 2012, the International Planetarium Society Conference, Baton Rouge, LA, July 23, 2012.
- Session Moderator of “International Planetariums,” IPS 2012, the International Planetarium Society Conference, Baton Rouge, LA, July 22–26, 2012.
- Advisory Committee, IPS 2012, the International Planetarium Society Conference 2012, Baton Rouge, LA.
- Delegate Submissions Committee, IPS 2012, the International Planetarium Society Conference 2012, Baton Rouge, LA.
- Unified Jury member, Late Breaking Jury member, ACM SIGGRAPH 2012.
- Discussion panelist at the “3D Creators Panel” at CineGrid’s 6th Annual International Workshop 2011, University of California San Diego, San Diego, CA, December 6, 2011.
- Technical Session Chair, “Show Me the Pixels,” ACM SIGGRAPH 2011, Vancouver, BC, August 10, 2011.
- Unified Jury member, Late Breaking Jury member, ACM SIGGRAPH 2011.
- Discussion panelist at the opening of “Synthesis: Processing and Collaboration” with Dan Sandin, Tom DeFanti, and Sheldon Brown, gallery@Calit2, University of California San Diego, San Diego, CA, January 13, 2011.
- Presentation of “A Multi-viewer Tiled Autostereoscopic Virtual Reality Display” at the 17th ACM Symposium on Virtual Reality Software & Technology, Hong Kong, China, November 22–24, 2010.
- Presentation of “Interactive 3D: Displays, Devices and Applications” at the Information Science & Technology Colloquium Series, NASA Goddard Space Flight Center, Greenbelt, MD, October 13, 2010.
- Presentation of “Planetary-scale Processing and Visualization,” a seminar at the LSU Department of Computer Science, Baton Rouge, LA, October 31, 2009.
- Presentation of “Planetary-scale Terrain Composition,” a seminar at the LSU Center for Computation & Technology, Baton Rouge, LA, May 16, 2008.
- Presentation of “Real-time Digital Dome Rendering Techniques and Technologies” at the International Planetarium Society 2008 Conference, Chicago, IL, July 2008.

- Demonstration of the “Planetary Scale Terrain Composition” algorithm at SC07, Reno, NV, November 2007, and at the Annual Meeting of AAAS, Chicago, IL, January 2008.
- Presentation of “The Varrier,” a seminar at the Adler Planetarium & Astronomy Museum, Chicago, IL, March 30, 2007.
- Presentation of “A GPU Sub-pixel Algorithm for Autostereoscopic Virtual Reality” at IEEE Virtual Reality 2007, Charlotte, NC, March 2007.
- Demonstration of Personal Varrier autostereoscopic display at SC05, Seattle, WA, November 2005
- Demonstration of Personal Varrier at the iGrid 2005 Workshop, UCSD, September 2005.

#### 4 INSTRUCTIONAL ACTIVITIES

##### *Courses Taught*

<i>Course</i>	<i>Title</i>	<i>Semester</i>	<i>Enr.</i>
CSC 3102	Adv. Data Structures & Algorithm Analysis	Fall 2016	–
CSC 4356	Interactive Computer Graphics	Fall 2016	–
CSC 3102	Adv. Data Structures & Algorithm Analysis	Spring 2016	–
CSC 3102	Adv. Data Structures & Algorithm Analysis	Fall 2015	67
CSC 4356 / ME 4573	Interactive Computer Graphics	Fall 2015	36
CSC 2463	Programming with Digital Media	Spring 2015	23
CSC 3102	Adv. Data Structures & Algorithm Analysis	Spring 2015	66
CSC 4356 / ME 4573	Interactive Computer Graphics	Fall 2014	49
CSC 4357 / ME 4583	Applied Computer Graphics	Spring 2014	8
CSC 2700	Programming with Digital Media	Spring 2014	18
CSC 4356 / ME 4573	Interactive Computer Graphics	Fall 2013	16
CSC 4357 / ME 4583	Applied Computer Graphics	Spring 2013	6
CSC 2700	Programming with Digital Media	Spring 2013	20
CSC 4356 / ME 4573	Interactive Computer Graphics	Fall 2012	21
CSC 4263 / ART 4020	Video Game Design	Spring 2012	19
CSC 2700	Programming with Digital Media	Spring 2012	21
CSC 4356 / ME 4573	Interactive Computer Graphics	Fall 2011	14
CSC 4263 / ART 4020	Video Game Design	Spring 2011	19
CSC 4356 / ME 4573	Interactive Computer Graphics	Fall 2010	23
CSC 4700 / ART 4020	Video Game Design	Spring 2010	9
CSC 4700 / ART 4020	Video Game Design	Spring 2009	20



*Teaching Evaluations (0.0–4.0)*

<i>Sem.</i>	<i>Course</i>	<i>Technique</i>	<i>Support</i>	<i>Effectiveness</i>	<i>Overall</i>		
F16	CSC 3102						
F16	CSC 4356						
S16	CSC 3102						
F15	CSC 3102	3.605	3.536	3.776	3.495		
F15	CSC 4356	3.767	3.775	3.895	3.705		
S15	CSC 2463	3.500	3.575	3.600	3.456		
S15	CSC 3102	3.643	3.675	3.714	3.547		
F14	CSC 4356	3.798	3.806	3.906	3.749		
S14	CSC 4357	3.881	3.846	3.857	3.759		
S14	CSC 2700	3.631	3.636	3.818	3.589		
F13	CSC 4356	3.864	3.805	3.909	3.763		
S13	CSC 4357	3.700	3.474	3.800	3.532		
S13	CSC 2700	3.556	3.543	3.778	3.545		
F12	CSC 4356	3.933	3.948	3.867	3.845		
<i>Sem.</i>	<i>Course</i>	<i>Q1–8 (avg.)</i>		<i>Instructor (avg.)</i>		<i>Overall (avg.)</i>	
S12	CSC 4263	3.62	(3.39)	3.73	(3.16)	3.73	(3.15)
S12	CSC 2700	3.98	(3.50)	3.83	(3.35)	3.83	(3.30)
S11	CSC 4263	3.77	(3.51)	3.86	(3.30)	3.86	(3.32)
F10	CSC 4356	3.92	(3.52)	3.93	(3.28)	3.93	(3.40)
S10	CSC 4700	3.51	(3.46)	3.33	(3.24)	3.78	(3.35)
S09	CSC 4700	3.62	(3.49)	3.67	(3.27)	3.50	(3.26)

*Courses Developed*

- CSC 2463 Programming with Digital Media. Presented as CSC 2700 in Spring 2012, 2013, 2014, and 2015. Total enrollment: 59.
- CSC 4263 Video Game Design. Presented in Spring 2011 through 2015. Presented as CSC 4700 in Spring 2009 and 2010. Cross-listed with ART 4020. Total enrollment (including cross-listing): 100+.

*Graduate Committees*

As Major Professor

- Kevin Cherry, PhD, November 2, 2015
- Job Champagne, PhD *in progress*

As Committee Member

- Zachary Berkowitz, PhD, May 2, 2016 (Dean's Representative)
- Sanaz Saeidi, PhD, *in progress*

- Wuyi Yu, PhD, November 16, 2015
- Farid Harhad, PhD, May 7, 2014
- Asim Shreshtha, PhD, *in progress* (Dean's Representative)
- Bidur Bohara, PhD, May 12, 2015
- Chen Fang, MS, October 6, 2014
- Neha Many, MS, April 2, 2014
- Kevin Cherry, MS, March 4, 2011
- Sean O'Connell, MS, October 26, 2009

#### *Other Instructional Activities*

- Senior Design Mentor, Marty Trosclair, Benjamin Thomas, David Duffy, Fall 2015–Spring 2016.
- Independent study mentor, Philip Breland, Spring 2016.
- Guest speaker at the LSU Chapter of the American Institute for Aeronautics and Astronautics, October 21, 2015.
- Honors Committee Chair, Mitchell Mason, 2015.
- Honors Committee Member, Bruno Beltram, 2015.
- Guest speaker at the DMAE Film Series screen of *Revolution OS*, March 11, 2015.
- Global Game Jam mentor, January 23–25, 2015.
- Chancellor's Student Aide mentor, Ryan Moon, Fall 2014.
- Independent study mentor, Shakayla Harris, Fall 2014.
- iOS App Boot Camp, August 4–15, 2014.
- Research Experience for Undergraduates (REU) mentor, Jackie Searcy, 2014.
- Presenter, Red Stick Futurefest, May 9, 2014.
- Guest lecture, CSC 4243 Interface Design and Technology, April 24, 2014.
- Member of the Board of Directors of the Mentorship Academy of Science and Technology, Baton Rouge, LA, 2011–present.
- Chancellor's Student Aide mentor, Thomas Culotta, 2013–2014.
- Chancellor's Student Aide mentor, Adam Fitzgerald, 2012–2013.
- Hosted visit of students from Scotlandville Pre-Engineering Magnet Academy, November 20, 2013.

- Guest speaker, Cajun Clickers, September 5, 2013.
- iOS App Boot Camp, August 5–15, 2013
- High school senior project mentor, Jacob Cobb, Fall 2012.
- Guest lecture, CSC 4101 Programming Languages, November 13, 2012.
- Guest lecture, Mobile App | Art | Action Group (MAG), October 4, 2012.
- Research Experience for Undergraduates (REU) mentor, Ayush Narayan 2012.
- Howard Hughes Medical Institute (HHMI) research program mentor, Joshua Gorman, 2011.
- Guest lecture, UC 0080 Advancing in Mentoring, Education and Research, March 24, 2011.
- Presentation of “Video Game Development” at the LSU Computer Science Intensive Orientation for Students 2010 (CIOS), Baton Rouge, LA, August 10, 2010.
- Research Experience for Undergraduates (REU) mentor, Chad Thompson, 2010.

## 5 SERVICE

### *University Service*

- Academic Showcase, CS department representative, February 5, 2016.
- Traditions Scholarship Committee, Spring 2016.
- Screen Arts Bachelor of Arts (SABA) Steering Committee, 2014–2015.
- Academic Showcase, CS department representative, February 5, 2015.
- Academic Showcase, CS department representative, February 7, 2014.
- Academic Showcase, CS department representative, January 31, 2014.
- Digital Media Arts & Engineering (DMAE) Faculty Review Committee, 2013.
- Spring Invitational Advising, April 12, 2013.
- Academic Showcase, CS department representative, February 21, 2013.
- Academic Showcase, CS department representative, February 8, 2013.
- enOvation Engineering Committee, 2012–2014.
- CS Industrial Advisory Board, 2011–2012, Co-chair 2013–2014.
- CS ABET Accreditation Committee, 2013–2014, 2012–2013.
- CS Graduate Admissions / Assistantship Committee, 2015–2016, 2014–2015, 2013–2014.
- CS Undergraduate Curriculum Committee, 2013–2014.

- CS Undergraduate Activities Committee, 2015–2016, 2014–2015, 2013–2014, 2012–2013, 2011–2012.
- Graphics & Visualization Exam Committee, 2015–2016.
- Algorithms Exam Committee, 2015–2016.
- Computer Architecture Exam Committee, 2014–2015, 2013–2014, 2012–2013, 2011–2012.
- Programming Languages Exam Committee, 2014–2015, 2013–2014, 2012–2013, 2011–2012.
- CS Intensive Orientation for Students Committee (CIOS), 2012–2013, Co-chair 2011–2012.
- CS Newsletter and Web Committee, 2012–2013, 2011–2012.
- CS department representative, Commencement, August 3, 2012.
- AVATAR Curriculum Committee, 2010–2013.

#### *Recruitment Activities*

- Interviewed for “LSUs digital media initiative coming of age after humble launch nine years ago,” Baton Rouge Business Report, November 5, 2015.
- Recruited for AVARAR / DMAE at Penny Arcade Expo East, April 10–14, 2014.
- Photo appears in *LSU Computer Science* brochure, LSU Office of Communications & University Relations, 2013–2014.
- Interviewed for “LSU Computer Science,” recruiting video, Louisiana Economic Development, October 30, 2013.
- Feature article “Assistant Professor Puts Students on the Moon,” Renee Barrow, *The Daily Reveille*, September 23, 2013.
- Web feature “Computer Science Professor Combines Research Interest, Practical Application,” Cassie Thibeaux, <http://www.lsu.edu>, May 10, 2013.
- Recruited for AVARAR / DMAE at Game Developer’s Conference, March 25–29, 2013.
- Web feature “Inspiring Programming Interaction,” Cassie Thibeaux, <http://www.eng.lsu.edu/news/2013/4/inspiring-programming-interaction--/>, April 8, 2013.
- Photo appears in *EQ: Louisiana Economic Quarterly*, Louisiana Economic Development, Q1 2013, p. 25.
- Interviewed for “SEC Academic Showcase,” ESPNU, October 18, 2011.
- Web feature “Game On: LSU Students Apply Cutting-Edge Creativity, Interactive Techniques to Develop Original Video Games,” Ashley Berthelot, LSU Media Relations, May 12, 2010.
- Interviewed for “LSU at 150,” WBRZ Baton Rouge, April 16, 2010.

- AVATAR recruitment seminar at SIGGRAPH 2009, New Orleans, LA, August 4, 2009.
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### *Reviewing*

- Reviewer International Planetarium Society (IPS) 2012
- Reviewer ACM SIGGRAPH 2012
- Reviewer ACM Southeast 2012
- Reviewer ACM SIGGRAPH 2011
- Reviewer ACM SIGCHI 2010
- Reviewer Cloud-Mobile Convergence for Virtual Reality Workshop (CMCVR 2010)

### 6 AWARDS

- Tiger Athletic Foundation Michael R. Mangham College of Engineering Memorial Undergraduate Teaching Award, 2015.
- “Forty under 40,” 2012, Baton Rouge Business Report, Baton Rouge LA.
- Rasmussen, M., Krumbholz, C., Kooima, R., Leigh, J., Fiscella, R., Ai, Z., Jin, B., Dixon, S., Hwang, K., Mer, E., Stevenson, A., Brady, A., Evenhouse, R., Parshall, R., “The Virtual Eye,” winner of the Dr. Frank H. Netter Award, 2007, The Vesalius Trust for Visual Communication in the Health Sciences.