

Beomjin Kim, Ph.D.

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Education

- Ph.D. in Computer Science, Illinois Institute of Technology (1998)
- M.S. in Computer Science, Illinois Institute of Technology (1989)
- B.S. in Computer Science, Inha University (1988)

Professional Experience

- 2015-present *Chair*, Department of Computer Science, Indiana University-Purdue University Fort Wayne (IPFW)
- 2011-present *Professor*, Department of Computer Science, Indiana University-Purdue University Fort Wayne (IPFW)
- 2012-present *Director*, Information Analytics and Visualization (IAV) Center, IPFW
- 2010-2012 *Executive Associate Director*, IAV Center, IPFW
- 2004-2011 *Associate Professor*, Department of Computer Science, IPFW
- 2006-2009 *Graduate Program Director*, Department of Computer Science, IPFW
- 1998-2004 *Assistant Professor*, Department of Computer Science, IPFW
- 1998-2000 *Research Member*, Digital Echocardiography Laboratory, Chicago, IL
- 1996-1997 *Instructor*, Department of Computer Science, Illinois Institute of Technology, Chicago, IL
- 1994-1996 *Laboratory Instructor*, Department of Computer Science, Illinois Institute of Technology
- 1993-1996 *Research Assistant*, Department of Computer Science, Illinois Institute of Technology

Grants and Awards

1. *Industry-sponsored Research Grant*, Co-PI, "ACoRL-Targamite Spring 2017 Project," Targamite LLC., 2017, \$40,804.
2. *Industry-sponsored Research Grant*, PI, "Construction of Order Set Reporting System Enhanced with Visual Analytics Tools," Parkview Health System, Inc., 2015-2017, \$45,081.
3. *IN-MaC Technology Adoption Program*, PI, "Data Warehouse and Visualization-assisted Business Analytics Tools for the M2M System," Bowmar, LLC., 2016, \$60,000.
4. *University System Development Fund*, PI, "Construction of an Integrated System for Collecting Data and Developing Visual Analytics Tools for IPFW University Strategic Alignment Process," IPFW, 2015-2017, \$40,000.
5. *PRF International Travel Grant*, Purdue Research Foundation, 2015, \$1,500.
6. *New Frontiers in the Arts & Humanities Grant*, Co-PI, "Light, Liturgy, and Art in the Church of the Monastery of Saint John, Müstair (CH)," Office of the Vice President for Research, Indiana University Bloomington, 2013-2014, \$44,166.
7. *Technical Assistant Project*, PI, "Developing Mobile Applications for Enhancing the Functionality of Picture Pay," Purdue University, 2013, \$6,000.
8. *2013 Senior Faculty Summer Research Grants*, PI, "A Comparison Study for Analyzing the Effects of Graphics Techniques in 3D Virtual Environments," IPFW, 2013, \$8,000.
9. *Subcontract Grant*, Co-PI, "Evaluating Visualization Techniques for Command and Control Applications using Stereoscopic Vision in a 3D Virtual Environment," National Science Foundation's Security and Software Engineering Research Center (SSERC), 2012-2013, \$29,993.
10. *Technical Assistant Project*, PI, "Developing Software Modules for Automatic Vehicle Location Enabled Mobile Devices," Purdue University, 2012, \$6,000.
11. *Subcontract Grant*, PI, "A Software Platform for Development and Evaluation of Visualization Techniques for Command and Control Applications," National Science Foundation's Security and Software Engineering Research Center (SSERC), 2011-2012, \$29,995.
12. *PRF International Travel Grant*, Purdue Research Foundation, 2011, \$1,000.

13. *IPFW Overseas Conference Fund*, IPFW, 2011, \$600.
14. *Allen County Education Partnership / ITT Excellence in Education Award Program*, Co-PI, "Teaching Study Elementary 2nd Graders about the Sun, Earth, and Moon with 3D Visualization," ITT Communications Systems & The Allen County Education, 2010, \$8,000.
15. *Grant-in-Aid of Research*, PI, "Preliminary Study for Constructing Virtual Environments on the CAVE System," Office of Research & External Support, IPFW, 2010, \$6,700.
16. *Professor Partnership Grant*, PI, "Utilizing 3D Vision Technology to Enhance Classroom Teaching," NVIDIA Corporation, 2010, Awarded about \$1,100 worth of research equipments.
17. *2009 Wireless Faculty Award*, IPFW Wireless Technology Center, 2009, \$4,000.
18. *Science Teacher of the Year Award*, IPFW Chapter of Sigma Xi, 2009.
19. *ETCS Excellence in Teaching Award*, IPFW, 2001 & 2009.
20. *Grant-in-Aid of Research*, PI, "RFID System for Tracking Moving Objects," Office of Research & External Support, IPFW, 2006, \$6,000.
21. *Special Merit Pay award*, IPFW, 2006, \$2,000.
22. *Researcher of the Year Award*, IPFW Sigma Xi Chapter, 2004.
23. *PRF International Travel Grant*, Purdue Research Foundation, 2004, \$1,122.
24. *Indiana University Overseas Conference Fund*, Indiana University, 2004, \$800.
25. *IPFW Overseas Conference Fund*, IPFW, 2004, \$600.
26. *ETCS Excellence in Research Award*, IPFW, 2003.
27. *Distinguished Research Award*, Allied Academies, 2002.
28. *PRF Summer Faculty Grant for Research*, "Schematic Visualization Method for Text-based Information," Purdue Research Foundation, 2002, \$6,000.
29. *PRF Summer Faculty Grant for Research*, "New Edge Detection Method for Noisy Images Using Cardinal Splines," Purdue Research Foundation, 2000, \$5,000.
30. *FWCS/IPFW Summer Research Grant*, "Computer Animation of Human Movement Based on Anatomy," FWCS/GTE, 2000, \$2,500.
31. *Funded Project*, "Meeting the Challenges of Teaching First-Year Students" (part of Eli Lilly grants), IPFW, 1999, \$750.
32. *Indiana University Overseas Conference Fund*, Indiana University, 1999, \$750.

Journal, Book Chapter, Edited Work, and Series Publications

1. Todd Welch, Gregory Short, **Beomjin Kim**, "Visual Interfaces Designed for Searching Text Content on Mobile Devices," *International Journal of Knowledge Engineering*, 1(3), pp. 230-235, (2015).
2. Tristan Hartzell, **Beomjin Kim**, Mark Thompson, Britton Wolfe, "An Experimental Study for Enhancing Depth Perception Accuracy in Minimized Virtual Environments," *International Journal of Convergence Information Technology*, 9(3), pp. 1-11, (2014).
3. Britton Wolfe, **Beomjin Kim**, Benjamin Aeschliman, Robert Sedlmeyer, "Experimental Studies of Stereoscopic Vision for Command and Control Operations," *Advances in Military Technology*, 9(2), pp. 91-104, (2014).
4. Britton Wolfe, **Beomjin Kim**, Benjamin Aeschliman, Robert Sedlmeyer, "Evaluating 3D Vision for Command and Control Applications," *Lecture Notes in Computer Science*, Springer-Verlag Berlin, Vol. 8034, pp. 747-756, (2013).
5. Zeynep Isik-Ercan, **Beomjin Kim**, Jeffrey Nowak, "Can 3D Visualization Assist in Young Children's Understanding of Sun-Earth-Moon System?" *International Journal of Knowledge Society Research*, IGI Global, 3(4), pp. 12-21, (2012).
6. **Beomjin Kim**, Benjamin Aeschliman, "A Technique for Creating Visually Abstracted Geometric Thumbnails of Web Documents for Mobile Devices," *International Journal of Digital Content Technology and its Applications*, 6(13), pp. 470-481, (2012).
7. Tristan Hartzell, Mark Thompson, **Beomjin Kim**, "The Influence of Graphics Effects on Perceiving Depth in Minimized Virtual Environments," *Communications in Computer and Information Science*, Springer-Verlag, Vol. 350, pp. 235-242, (2012).
8. Zeynep Isik-Ercan, Hatice Zeynep Inan, Jeffrey A. Nowak, **Beomjin Kim**, "We put on the glasses and Moon comes closer!" Urban Second Graders Exploring the Earth, the Sun and Moon Through 3D Technologies in a Science and Literacy Unit," *International Journal of Science Education*, Taylor & Francis, pp. 1-28, (2012).

9. **Beomjin Kim**, Jon Scott, SeungEun Kim, "Exploring Digital Libraries through Visual Interfaces," *Digital Libraries - Methods and Applications: Chapter 6*, ISBN 978-953-307-203-6, INTECH, pp. 123-136, (2011).
10. Zeynep Isik-Ercan, **Beomjin Kim**, Jeffrey A. Nowak, "3D Visualization in Elementary Education Astronomy: Teaching Urban Second Graders about Sun, Earth, and the Moon," *Communications in Computer and Information Science*, Springer Berlin Heidelberg, Part I, CCIS 111, pp. 500-505, (2010).
11. Jon Scott, **Beomjin Kim**, Sanyogita Chhabada, "Visualized Index-Based Search for Digital Libraries," *Lecture Notes in Computer Science*, Springer-Verlag Berlin, Vol. 5875, pp. 125-134, (2009).
12. **Beomjin Kim**, Editor, *Proceedings of the 20th Midwest Artificial Intelligence and Cognitive Science Conference*, (2009).
13. **Beomjin Kim**, Philip Johnson, "Graphical Interface for Visual Exploration of Online Discussion Forums," *Journal of Systemics, Cybernetics and Informatics*, 4(4), pp. 43-47, (2006).
14. **Beomjin Kim**, Philip Johnson, Jason Baker, "Empirical Evaluation of a Visual Interface for Exploring Message Boards," *Lecture Notes in Computer Science*, Springer-Verlag Berlin, Vol. 4291, pp. 293-302, (2006).
15. **Beomjin Kim**, Jeffrey Soble, Thomas Stamos, Alexander Neumann, James Robergé, "Automated Volumetric Flow Quantification Using Angle-corrected Color Doppler Image," *Echocardiography: A Journal of Cardiovascular Ultrasound and Allied Techniques*, 21(5), pp. 399-408, (2004).
16. **Beomjin Kim**, "Visual Interface for Evaluating Internet Search Results," *Lecture Notes in Computer Science*, Springer-Verlag Berlin, Vol. 2973, pp. 533-542, (2004).
17. S.-H. Kim, J. C. Park, **B. Kim**, S. K. Lee, D. U. Kim, Y.-H. Kim, "Self-assembled Interconnection by Bamboo-like Carbon Nanotubes," *Materials Science and Engineering C: Biomimetic and Supramolecular Systems*, Vol. 24, pp. 297-300, (2004).
18. **Beomjin Kim**, "Experimental Evaluation of Query Fingerprinting with Embedded Search Term Markers," *Lecture Notes in Computer Science*, Springer-Verlag Berlin, Vol. 2668, pp. 532-541, (2003).
19. Adam Huarng, Ming Wang, **Beomjin Kim**, "An Empirical Investigation of E-commerce Application Development Effectiveness," *Journal of Strategic E-commerce*, 1(1), pp. 63-74, (2003).
20. Sung-Hoon Kim, **Beomjin Kim**, "Enhancement of the Diamond Film Characteristics by Increasing the Cyclic Modulation Time Interval of CH₄ Flow," *International Journal of New Diamond and Frontier Carbon Technology*, 13(6), pp. 333-340, (2003).
21. **Beomjin Kim**, Philip Johnson, Adam Huarng, "Colored-sketch of Text Information," *Journal of Informing Science*, 5(4), pp. 163-173, (2002).
22. T. Stamos, **B. Kim**, A. Neumann, J. Robergé, J. Soble, R. Marcus, "Fully Automated Stroke Volume Determination Using Computerized Analysis of Digital Color Flow Doppler Images," *Circulation*, 94(8), pp. 378, (1996).
23. J. Soble, T. Stamos, **B. Kim**, A. Neumann, J. Stein, D. Kim, J. Parillo, J. Robergé, R. Marcus, "Accuracy of Computerized Quantitative Analysis of Digital Color Flow Doppler Images for Stroke Volume Determination," *Journal of the American College of Cardiology*, 27(2), pp. 267, (1996).
24. T. Stamos, **B. Kim**, J. Bokowski, A. Neumann, E. Duffy, J. Robergé, R. Marcus, J. Soble, "Accuracy of Computerized Quantitative Analysis of Digital Color Flow Images for Determination of Atrial Septal Defect Flow," *Circulation*, 94(8), pp. 236, (1996).
25. J. Soble, T. Stamos, **B. Kim**, A. Neumann, J. Schmitt, M. Harry, N. Sehgal, G. Schaer, T. Hursey, J. Robergé, R. Marcus, "Stroke Volume from Computerized Analysis of Digital Color Flow Images: Comparison with Transonic Flow Probe," *Journal of the American College of Cardiology*, 27(2), pp. 267, (1996).

Refereed Conference Publications

26. Mark Thompson, **Beomjin Kim**, Thomas Bolinger, Tristan Hartzell, "The Effect of Computer Graphics Techniques on Perceiving Depth in Magnified Virtual Environments" *Proceedings of the 2018 International Conference on Computer Graphics and Virtuality*, (In printing, 2018).
27. Max Fowler, Mikah Sunderman, Megi Shtika, Brett Galloway, Austin Kuhn, Nivetha Pandian, Katrina Eby, Tammy Toscos, **Beomjin Kim**, "WoundView: Prototype Telemedicine System for Real-time, Off-site Diagnosis," *Proceedings of the 9th International Conference on Internet*, pp. 427-432, (2017).
28. Maxwell Fowler, Chris Bellis, Chris Perry, **Beomjin Kim**, "Exploring Web-based Visual Interfaces for Searching Research Articles on Digital Library Systems," *Proceedings of the 27th Modern Artificial*

- Intelligence and Cognitive Science Conference*, Selected as the **Best Student Paper Award** in Cognitive Science, pp. 55-62, (2016).
29. Todd Welch, Gregory Short, **Beomjin Kim**, "Visual Interfaces Designed for Searching Text Content on Mobile Devices," *Proceedings of the 4th International Conference on Information and Knowledge Management*, Paper Id: 17, (2015).
 30. Dan Deifenbaugh, Ben Aeschliman, Paul Barrett, Charlotte Brassey, James Farlow, Shoji Hayashi, **Beomjin Kim**, "Three-Dimensional Reconstruction of a Stegosaurus Dorsal Plate and Alligator Scute," *Proceedings of the 130th Annual Academy Meeting of the Indiana Academy of Science*, pp. 39, 2015.
 31. Gregory Short, **Beomjin Kim**, "Multi-tiered Visual Interfaces for Book Search with Digital Library Systems," *Proceedings of the 6th International Conference on Multimedia, Computer Graphics and Broadcasting*, pp.21-24, (2014).
 32. Ji-Hoon Park, In-Hwa Hong, Hak-Bae Kim, **Beomjin Kim**, Jeong-Jin Kang, "Individually Customized Exercise Management System at a Public Park," *Proceedings of the 1st International Conference on Contents, Platform, Network and Device*, pp. 122-125, (2014).
 33. Britton Wolfe, Dmytro Podgorniy, **Beomjin Kim**, Robert Sedlmeyer, "C2VE: A Software Platform for Evaluating the Use of 3D Vision Technology for C2 Operations," *The 17th International Command and Control Research and Technology Symposium*, Paper Id: 87, (2012).
 34. **Beomjin Kim**, Benjamin Aeschliman, "Experimental Assessment of a Visual Interface Designed for Web Documents on Mobile Devices," *Proceedings of the 6th International Conference on Computer Sciences and Convergence Information Technology*, pp. 231-236, (2011).
 35. Brett Meyer, Kevin Bryan, Yamara Santos, **Beomjin Kim**, "TwitterReporter: Breaking News Detection and Visualization through the Geo-Tagged Twitter Network," *Proceedings of the 26th International Conference on Computers and Their Applications*, pp. 84-89, (2011).
 36. Tristan Hartzell, Daniel Hale, **Beomjin Kim**, "Recognizing Human Gestures Utilizing the Nintendo Wii Remote," *Proceedings of the 21th Midwest Artificial Intelligence and Cognitive Science Conference*, Selected as the **Best Student Paper Award** in Cognitive Science, pp. 5-10, (2010).
 37. Benjamin Aeschliman, **Beomjin Kim**, Michael Burton, "A Visual Analysis of Spatio-temporal Data Associated with Human Movement," *Proceedings of the 17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, pp. 400-403, (2009).
 38. Michael Burton, Benjamin Aeschliman, Robin Mitchell, **Beomjin Kim**, "An Interactive Graphical Interface Presenting Data-Mined Customer Activity In Geotemporal Space," *Proceedings of the 20th Midwest Artificial Intelligence and Cognitive Science Conference*, pp. 180-185, (2009).
 39. **Beomjin Kim**, Keith Bock, Michael Burton, Rod Strong, Benjamin Aeschliman, "VisRFID: Visualizing Customer Behavior in Geotemporal Space using RFID Technology," *Proceedings of the 20th International Conference on Software Engineering and Knowledge Engineering*, pp. 422-427, (2008).
 40. Chris Dunn, Anne-Marie Buibish, Jeff Stanford, **Beomjin Kim**, "TeamBuilder: Visualization for Identifying Project Team Quality in Multi-variant Resources," *Proceedings of the 19th Midwest Artificial Intelligence and Cognitive Science Conference*, pp. 166-171, (2008).
 41. Chris Dunn, **Beomjin Kim**, "Geometric Thumbnails for Web Searching," *Proceedings of the 19th International Conference on Software Engineering and Knowledge Engineering*, pp. 251-254, (2007).
 42. Keith Bock, Michael Burton, Rod Strong, **Beomjin Kim**, "A Multi-user Decision Support System Conducted within a Dynamic Virtual Environment," *Proceedings of the 18th Midwest Artificial Intelligence and Cognitive Science Conference*, pp. 15-20, (2007).
 43. **Beomjin Kim**, "Automated Blood Volume Quantification from Color Doppler Images while Tracking the Conduit Motion," *Proceedings of the 2006 International Conference on Bioinformatics & Computational Biology*, pp. 177-181, (2006).
 44. **Beomjin Kim**, Philip Johnson, Jaehyub Lee, "Graphical Illustration of Online Message Boards via Visual Abstraction," *Proceedings of the 2nd International Conference on Cybernetics and Information Technologies, Systems and Applications*, Vol. 2, pp. 312-317, (2005).
 45. Steven Sarratore, Susan Hannah, **Beomjin Kim**, "Using Data Visualization Techniques to Evaluate the Baccalaureate Degree," *A Collection of Papers on Self-Study and Institutional Improvement, The Higher Learning Commission*, North Central Association of Colleges and Schools, Vol. 3, pp. 3-8, (2005).
 46. Jing Xie, **Beomjin Kim**, "Templating the Optimal Orthopedic Implants Using a Decision-support System," *Proceedings of the 15th Midwest Artificial Intelligence and Cognitive Science Conference*, pp. 80-85, (2004).

47. Jaehyub Lee, **Beomjin Kim**, David Erbach, "A Study on Measurement of the Amount of Incoming Light in Virtual Green House," *Proceedings of the 2004 International Conference on Modeling, Simulation and Visualization Methods*, pp. 23-27, (2004).
48. **Beomjin Kim**, "Astrograph for Exploring Discussion Forums," *Proceedings of the 2003 International Conference on Information and Knowledge Engineering*, pp. 321-327, (2003).
49. Philip Johnson, **Beomjin Kim**, Sung-Hoon Kim, "Visualization of Topical Transitions in Full Length Text Documents," *Proceedings of the 14th Midwest Artificial Intelligence and Cognitive Science Conference*, pp. 47-51, (2003).
50. S. Kim, **B. Kim**, S. Lee, "Field Emission Characteristics of Vertically Well-aligned Carbon Nanotubes Bundles," *The 91st National Meeting of the Korean Chemical Society*, pp. 270, (2003).
51. S.-H. Kim, J. C. Park, **B. Kim**, S. K. Lee, D. U. Kim, Y.-H. Kim, "Self-assembled Interconnection Using Bamboo-like Carbon Nanotubes," *Proceedings of the 14th Molecular Electronics & Device Symposium*, pp. 154, (2003).
52. Philip Johnson, **Beomjin Kim**, Lwin Moe, David Erbach, "Visualization of Web Retrieval Results," *Proceedings of the ISCA 15th International Conference on Computer Applications in Industry and Engineering*, pp. 33-36, (2002).
53. **Beomjin Kim**, Philip Johnson, "Query Fingerprinting: Document Visualization Using Color Coding," *Proceedings of the 2002 International Conference on Information and Knowledge Engineering*, pp. 143-149, (2002).
54. Adam Huarng, Ming Wang, **Beomjin Kim**, "An Empirical Investigation of E-commerce Application Development Effectiveness," *Proceedings of the Academy of Information and Management Sciences*, 6(2), pp. 27-32 (2002).
55. **B. Kim**, T.D. Stamos, J.S. Soble, J. Robergé, "Automated Conduit Detection Method from a Synthetic M-mode Using Spline Curves," *Proceedings of the IEEE Computers in Cardiology Conference*, Vol. 27, pp. 21-24, (2000).
56. **Beomjin Kim**, "Using WebCT in Computer Science Course," *Proceedings of the 2000 International Online Conference on Teaching Online in Higher Education*, Paper number 41, (2000).
57. **B. Kim**, T. Stamos, A. Neumann, J.S. Soble, J. Robergé, "Fully-Automated Stroke Volume Determination From Digital Color Flow Echocardiographic Images," *Proceedings of the IEEE Computers in Cardiology Conference*, Vol. 26, pp. 169-172, (1999).
58. **Beomjin Kim**, Adam Huarng, "Use of Web-based Discussion Group in Introductory Programming Course," *Proceedings of the 1999 International Online Conference on Teaching Online in Higher Education*, Paper number 51, (1999).
59. **B. Kim**, J. Robergé, T. Stamos, J. Wolfer, R. Marcus, J. Soble, "Computing Stroke Volume from Digital 2-D Color Flow Echocardiographic Cineloops of the Left Ventricular Outflow Tract," *Proceedings of the IEEE Computers in Cardiology Conference*, Vol. 23, pp. 197-200, (1996).

Presentations (Only list major presentations)

1. *The 9th International Conference on Internet*, "WoundView: Prototype Telemedicine System for Real-time, Off-site Diagnosis," Vientiane, Laos, December 17-20, 2017.
2. *The 27th Modern Artificial Intelligence and Cognitive Science Conference*, "Exploring Web-based Visual Interfaces for Searching Research Articles on Digital Library Systems," Dayton, OH, April 22-23, 2016.
3. *The 4th International Conference on Information and Knowledge Management*, "Visual Interfaces Designed for Searching Text Content on Mobile Devices," Shanghai, China, July 29-30, 2015.
4. *The 130th Indiana Academy of Science Annual Meeting*, "Three-Dimensional Reconstruction of a Stegosaurus Dorsal Plate and Alligator Scute," Indianapolis, IN, March 21, 2015.
5. *The 1st International Conference on Contents, Platform, Network and Device*, "Individually Customized Exercise Management System at a Public Park," Busan, Korea, July 10-13, 2014.
6. *The 9th International Symposium on Visual Computing*, "Evaluating 3D Vision for Command and Control Applications," Rethymnon, Crete, Greece, July 29-31, 2013.
7. *Spring 2013 S²ERC Showcase*, "Evaluating Visualization Techniques for Command and Control Applications using Stereoscopic Vision in a 3D Virtual Environment," Blue Cross Blue Shield Association, Chicago, IL, May 8-9, 2013.

8. *The 2012 International Conference on Digital Contents and Applications*, “The Influence of Graphics Effects on Perceiving Depth in Minimized Virtual Environments,” Gangneung, Korea, December 16-19, 2012.
9. *Fall 2012 S²ERC Showcase*, “Evaluating Visualization Techniques for Command and Control Applications using Stereoscopic Vision in a 3D Virtual Environment,” Ball State University, Muncie, IN, November 7-8, 2012.
10. *The 17th International Command and Control Research and Technology Symposium*, “C2VE: A Software Platform for Evaluating the Use of 3D Vision Technology for C2 Operations,” Fairfax, VA, June 19-22, 2012.
11. *Spring 2012 S²ERC Showcase*, “A Software Platform for Development and Evaluation of Visualization Techniques for Command and Control Applications,” Virginia Tech Research Center, Arlington, VA, May 16-17, 2012
12. *The 6th International Conference on Computer Sciences and Convergence Information Technology*, “Experimental Assessment of a Visual Interface Designed for Web Documents on Mobile Devices,” Jeju Island, South Korea, November 29-December 1, 2011.
13. *The 26th International Conference on Computers and Their Applications*, “TwitterReporter: Breaking News Detection and Visualization through the Geo-Tagged Twitter Network,” New Orleans, Louisiana, March 23-25, 2011.
14. *Spring 2011 S²ERC Showcase*, “A Software Platform for Development and Evaluation of Visualization Techniques for Command and Control Applications,” Security and Software Engineering Research Center, Muncie, IN, May 18-19, 2011.
15. *The 1st International Conference on Technology Enhanced Learning, Reforming Education and Quality of Teaching*, “3D Visualization in Elementary Education Astronomy: Teaching Urban Second Graders about Sun, Earth, and the Moon,” Athens, Greece, May 19-21, 2010.
16. *The 21th Midwest Artificial Intelligence and Cognitive Science Conference*, “Recognizing Human Gestures Utilizing the Nintendo Wii Remote,” South Bend, IN, April 17-18, 2010.
17. *The 5th International Symposium on Visual Computing*, “Visualized Index-Based Search for Digital Libraries,” Las Vegas, NV, November 30-December 2, 2009.
18. *The 17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, “A Visual Analysis of Spatio-temporal Data Associated with Human Movement,” Seattle, WA, November 4-6, 2009.
19. *The 20th International Conference on Software Engineering and Knowledge Engineering*, “VisRFID: Visualizing Customer Behavior in Geotemporal Space using RFID Technology,” Redwood City, CA, July 1-3, 2008.
20. *The 20th Midwest Artificial Intelligence and Cognitive Science Conference*, “An Interactive Graphical Interface Presenting Data-Mined Customer Activity In Geotemporal Space,” Fort Wayne, IN, April 18-19, 2009.
21. *U.S. Coast Guard*, Grant proposal presentation, “Improving Security and Safety of U.S. Harbors using RFID Technology,” Washington D.C., June 20, 2008.
22. *The 19th Midwest Artificial Intelligence and Cognitive Science Conference*, “TeamBuilder: Visualization for Identifying Project Team Quality in Multi-variant Resources,” Cincinnati, OH, April 12- 13, 2008.
23. *The 19th International Conference on Software Engineering and Knowledge Engineering*, “Geometric Thumbnails for Web Searching,” Boston, MA, July 9-11, 2007.
24. *The 18th Midwest Artificial Intelligence and Cognitive Science Conference*, “A Multi-user Decision Support System Conducted within a Dynamic Virtual Environment,” Chicago, IL, April 21-22, 2007.
25. *The 2006 International Symposium on Visual Computing*, “Empirical Evaluation of a Visual Interface for Exploring Message Boards,” Lake Tahoe, NV, November 6-8, 2006.
26. *The 2006 International Conference on Bioinformatics & Computational Biology*, “Automated Blood Volume Quantification from Color Doppler Images while Tracking the Conduit Motion,” Las Vegas, NV, June 26-29, 2006.
27. *The 2nd International Conference on Cybernetics and Information Technologies, Systems and Applications*, “Graphical Illustration of Online Message Boards via Visual Abstraction,” Orlando, FL, July 14-17, 2005.
28. *The 2004 International Conference on Modeling, Simulation and Visualization Methods*, “A Study on Measurement of the Amount of Incoming Light in Virtual Green House,” Las Vegas, NV, June 21-24, 2004.

29. *The 15th Midwest Artificial Intelligence and Cognitive Science Conference*, “Templating the Optimal Orthopedic Implants Using a Decision-support System,” Chicago, IL, Apr. 17-18, 2004.
30. *International Conference on Database Systems for Advanced Applications*, “Visual Interface for Evaluating Internet Search Results,” Jeju Island, Korea, March 17-19, 2004.
31. *International Conference on Information and Knowledge Engineering*, “Astrograph for Exploring Discussion Forums,” Las Vegas, NV, June 23-26, 2003.
32. *The 14th Midwest Artificial Intelligence and Cognitive Science Conference*, “Visualization of Topical Transitions in Full Length Text Documents,” Cincinnati, OH, April 12-13, 2003.
33. *International Conference on Computational Science and Its Applications*, “Experimental Evaluation of Query Fingerprinting with Embedded Search Term Markers,” Montreal, Canada, May 18-21, 2003.
34. *The ISCA 15th International Conference on Computer Applications in Industry and Engineering*, “Visualization of Web Retrieval Results,” San Diego, CA, November 7-9, 2002.
35. *International Conference on Information and Knowledge Engineering*, “Query Fingerprinting: Document Visualization Using Color Coding,” Las Vegas, NV, June 24-27, 2002.
36. *International Online Conference on Teaching Online in Higher Education*, “Using WebCT in Computer Science Course,” Fort Wayne, IN, November 13-14, 2000.
37. *IEEE Computers in Cardiology Conference*, “Automated Conduit Detection Method from a Synthetic M-mode Using Spline Curves,” Cambridge, MA, September 24-27, 2000.
38. *The Challenges of Teaching First-Year Students workshop*, “Introductory Programming Course Portfolio,” Fort Wayne, IN, January 7, 2000.
39. *International Online Conference on Teaching Online in Higher Education*, “Use of Web-based Discussion Group in Introductory Programming Course,” Fort Wayne, IN, November 8-9, 1999.
40. *IEEE Computers in Cardiology Conference*, “Fully-Automated Stroke Volume Determination From Digital Color Flow Echocardiographic Images,” Hannover, Germany, September 26-29, 1999.
41. *IEEE Computers in Cardiology Conference*, “Computing Stroke Volume from Digital 2-D Color Flow Echocardiographic Cineloops of the Left Ventricular Outflow Tract,” Indianapolis, IN, September 8-11, 1996.
42. *The 45th Annual Scientific Session of the American College of Cardiology*, “Accuracy of Computerized Quantitative Analysis of Digital Color Flow Doppler Images for Stroke Volume Determination”, “Stroke Volume from Computerized Analysis of Digital Color Flow Images: Comparison with Transonic Flow Probe,” Orlando, FL, March 24-27, 1996.

Professional Services

- Editor & Conference Chair, *The 20th Midwest Artificial Intelligence and Cognitive Science Conference*, 2009.
- Editorial Board / Editorial Committee
 - *The International Journal of Internet, Broadcasting and Communication*, 2014-present.
 - *The International Journal of Advanced Smart Convergence*, 2014-present.
 - *The Journal of The Institute of Internet, Broadcasting and Communication*, 2014-present.
 - *International Journal of Smart Device and Appliance*, 2015-present.
 - *International Journal of Digital Contents and Applications*, 2012-2016.
 - *The KSII Transactions on Internet and Information Systems*, 2007-2011.
 - *International Conference on Digital Contents and Applications*, 2012.
- Academic Review Board, *The International Journal of Computational Science (IJCS)*, 2007-present.
- International Committee, *AICIT's International Conference Series*, 2011-2016.
- International Advisory Board
 - *International Symposium on Advanced and Applied Convergence*, 2014-present.
 - *International Conference on Contents, Platform, Network and Device*, 2014, 2015, 2016.
- Program Committee
 - *The International Conference on Ubiquitous Information Management and Communication*, 2011-present.
 - *The 9th International Conference on Internet*, 2017.
 - *The 10th & 11th Asia Pacific International Conference on Information Science and Technology*, 2015, 2016.
 - *The 8th International Conference on Information Science and Digital Content Technology*, 2012.

- *The 2011 Society for Design and Process Science*, 2011.
- *The 6th International Conference on Computer Sciences and Convergence Information Technology*, 2011
- *Modern Artificial Intelligence and Cognitive Science Conference*, 2004, 2006, 2007, 2009-2011, 2015, 2017.
- *The International Workshop on Semantic Web Application: Theory and Practice*, 2006.
- Special Track on Intelligent Analysis of Text and Multimedia Data, *The IEEE International Symposium on Computer- based Medical Systems*, 2006.
- Senior Member
 - *International Association of Computer Science and Information Technology (IACSIT)*, May 2015 - present.
- Session Chair
 - *The 9th International Conference on Internet*, 2017.
 - *The 6th International Conference on Computer Sciences and Convergence Information Technology*, 2011.
 - *The 2004 Midwest Artificial Intelligence and Cognitive Science Conference*, 2004.
 - *The 9th International Conference on Database Systems for Advanced Applications*, 2004.
- Technical Committee
 - *The 4th International Conference on Information and Knowledge Management*, 2015.

Research Students Supervision

Grants & Awards

1. Maxwell Fowler, Chris Bellis, Chris Perry, *The Best Student Paper Award in Cognitive Science*, The Cognitive Science Society, 2016.
2. Maxwell Fowler, *IPFW Graduate Student Travel Grant*, IPFW, 2016, \$250.
3. Chris Bellis, *IPFW Travel Support Program*, IPFW, 2016, \$250.
4. Todd Welch, *IPFW Undergraduate Summer Research Support Program*, “IPFW Mobile Application Development,” IPFW, 2012, \$1,000.
5. Wesley King with five Mechanical Engineering students, The first place award, *The 2nd Annual Naval Surface Warfare Center Crane Division Undergraduate Design Competition*, 2012.
6. Andrew Habegger, Wesley King, *IPFW Undergraduate Summer Research Support Program*, “Enhancing En Masse Spatial Reasoning Using Stereoscopy,” IPFW, 2011, \$1,000.
7. Tristan Hartzell, Daniel Hale, *The Best Student Paper Award in Cognitive Science*, The Cognitive Science Society, 2010, \$250 prize and one year membership in the Cognitive Science Society.
8. Tristan Hartzell, *IPFW Undergraduate Summer Research Support Program*, “Visualizing Multi-Dimensional Spatio-Temporal Data In An Immersive Virtual Environment,” IPFW, 2010, \$1,000.
9. Benjamin Aeschliman, *The Office of Graduate Studies Graduate Assistantship*, IPFW, 2008-2009, \$12,740 with a remission of tuition.
10. Jon Scott, *IPFW Graduate Student Travel Grant*, IPFW, 2009, \$250.
11. Angela Gorrell, *IPFW Undergraduate Summer Research Support Program*, “Viewing Browsing History Using Treemaps,” IPFW, 2008, \$1,000.
12. Michael Burton, *IPFW Graduate Student Travel Grant*, IPFW, 2008, \$250.
13. Chris Dunn, *IPFW Graduate Student Travel Grant*, IPFW, 2007, \$250.
14. Jason Baker, The first place at *IPFW Chapter of Sigma Xi Club Student Research Competition*, “A Visualization Technique for Categorizing Text Documents in Vector Space,” 2006.
15. Philip Johnson, The second place at *IPFW Chapter of Sigma Xi Club Student Research Competition*, “Visualization of Online Social Spaces,” 2005.
16. Benjamin Aeschliman, *IPFW Undergraduate Summer Research Support Program*, “The Enhancement of Visualization for Improving Search Efficiency in Text-Based Information,” IPFW, 2005, \$1,150.
17. Philip Johnson, The first place at *IPFW Chapter of Sigma Xi Club Student Research Competition*, “Visualizing Large Information Workspaces,” 2003.
18. Philip Johnson, *IPFW Undergraduate Summer Research Support Program*, “Socio-Temporal Visualization of On-line Bulletin Boards,” IPFW, 2003, \$1,150.
19. Philip Johnson, *IPFW Travel Support Program*, IPFW, 2002, \$250.

20. Ryan Heniser, *IPFW Summer Stipend for Research and Creative Endeavor*, "A Study of Interactive Methods of Control for Objects in Three-Dimensional Space," IPFW, 2000, \$800.

Publications & Presentations

1. Austin Kuhn, Brett Galloway, Nivetha Pandian, Megi Shtika, Mikah Sunderman, "Applying 3D Vision and Remote Patient Monitoring (RPM) to Wound Care," *2017 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2017).
2. Alyssa Cantrell, Brian Doetsch, Curt Jenkins, Michael Mort, "WoundView: A Prototype Telemedicine System Designed for Wound Assessment," *The 19th IPFW Annual Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2016).
3. Christopher Bellis, Chris Perry, Max Fowler, "Web-based Visual Interfaces Designed for Searching on Collections of Research Papers," *The 19th IPFW Annual Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2016).
4. Grant Grimm, Jaron Somers, Scott Weidenkopf, Jared Perry, Warren Barnes, "Mobile Application Development for Promoting Usage of City Trails," *The 19th IPFW Annual Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2016).
5. Todd Welch, "IPFW Mobile Application," *2013 Student Research and Creative Endeavor Symposium*, (2013).
6. Mark Thompson, M.S. degree in Applied Computer Science dissertation, "Influence of Graphics Effects on Perceiving Depth in Maximized Virtual Environments," (2013).
7. Tristan Hartzell, M.S. degree in Applied Computer Science dissertation, "Improving Perception in 3D Stereoscopic Disaster Response Environments," (2013).
8. Tristan Hartzell, "Visualizing Social Network Data Propagation in Geo-Temporal Space," *Proceedings of the 2011 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2011).
9. Tristan Hartzell, Daniel Hale, "Gesture Recognition Utilizing a 3-Axis Motion-Enabled Device," *Proceedings of the 2010 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2010).
10. Hermann Kuschke, Gary Miller, David Seipel, "Collaborative Interaction of Multiple Users in a Virtual Environment," *Proceedings of the 2009 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2009).
11. Angela Gorrell, "Visualizing Historical Web Activities Using Treemaps," *Proceedings of the 2009 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2009).
12. Michael Baeske, "Interactive Graphical Interface for Exploring Multi-facet Data in Three-Dimensional Space," *Proceedings of the 2009 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2009).
13. Jon Scott, "Visualizing Digital Library Search Results," *Proceedings of the 20th Annual Butler University Undergraduate Research Conference*, pp. 44-45, Indianapolis, IN, (2008).
14. SeungEun Kim, Jon Scott, Benjamin Aeschliman, "Graphical Representation of Book Index for Digital Library Searching System," *Proceedings of the 2008 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2008).
15. Josh Elwood, "A Multi-user Virtual Campus Social Space," *Proceedings of the 19th Annual Butler University Undergraduate Research Conference*, Indianapolis, IN, (2007).
16. Ben Aeschliman, Jason Baker, "A Visualization Technique for Categorizing Text Documents in Vector Space," *Proceedings of the 2006 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2006).
17. Joshua Stir, Thomas White, "Virtually Simulated Multi-user Cyberspace," *Proceedings of the 2006 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2006).
18. Benjamin Aeschliman, Jason Baker, "Visualizing Relevancy of Documents to Search Terms in Vector Space," *Proceedings of the 11th Indiana University Undergraduate Research Conference*, pp. 26, Indianapolis, IN, (2005).
19. Philip Johnson, "Visualization of Online Social Spaces," *Proceedings of the 2005 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2005).
20. Philip Johnson, "Socio-Temporal Visualization of On-line Discussion Forums," *Proceedings of the 14th Annual Argonne National Laboratory Symposium for Undergraduates in Science, Engineering, and Mathematics*, Argonne, IL, (2003).

21. Philip Johnson, "Visualizing Large Information Workspaces," *Proceedings of the 2003 Student Research and Creative Endeavor Symposium*, Fort Wayne, IN, (2003).
22. Praveen Saxena, Philip Johnson, "Info-Guide: Visualization of Internet Search Results," *Proceedings of the 8th Indiana University Undergraduate Research Conference*, pp. 33, Indianapolis, IN, (2002).
23. Philip Johnson, "Query Fingerprinting: Visual Representation of Text-based Information," *Proceedings of the 16th National Conference on Undergraduate Research*, Whitewater, WI, and *Proceedings of the 2002 Student Research and Creative Endeavor Symposium*, pp. 67, Fort Wayne, IN, (2002).
24. Lwin Moe, "Visualization of Internet Search Result," *Proceedings of the 14th Annual Butler University Undergraduate Research Conference*, pp. 47, Indianapolis, IN, (2002).
25. Pamela Pee, "Visualization of Text Based Discussion Groups," *Proceedings of the 14th Annual Butler University Undergraduate Research Conference*, pp. 47, Indianapolis, IN, (2002).
26. Philip Johnson, "Text Representation on Litmus Paper," *Proceedings of the 12th Annual Argonne National Laboratory Symposium for Undergraduates in Science, Engineering, and Mathematics*, Argonne, IL, and *Proceedings of the 7th Indiana University Undergraduate Research Conference*, Indianapolis, IN, (2001).
27. Bradley Mergy, "Interactive Electronic Mail," *Proceedings of the 2000 Undergraduate Research and Creative Endeavor Symposium*, pp. 49, Fort Wayne, IN, (2000).
28. Ryan Heniser, "An Interactive Method to Control Objects in 3-Dimensional Space Using the Cardinal Spine," *Proceedings of the 6th Indiana University Undergraduate Research Conference*, Indianapolis, IN, (1999).