JONG KWAN "JAKE" LEE

Curriculum Vitae

September 5, 2020

I. Academic Degrees

2008	Doctor of Philosophy in Computer Science, University of Alabama in Huntsville, Huntsville, AL. Title of Dissertation: "On Efficient Opacity Correction for Over-sampled Volume Ray Casting Visualization."
2003	Master of Science in Computer Science, University of Alabama in Huntsville, Huntsville, AL. Title of Thesis: "Automated Solar Coronal Loop Identification."
2001	Bachelor of Engineering in Electronics and Electrical Engineering, Kyungpook National University, Daegu, Korea.

II. Academic Positions

A. Teaching Positions

2015 – present	Associate Professor of Computer Science, Bowling Green State University, Bowling Green, OH.
2009 – 2015	Assistant Professor of Computer Science, Bowling Green State University, Bowling Green, OH.
2008 – 2009	Visiting Assistant Professor of Computer Science, Bowling Green State University, Bowling Green, OH.
2006 – 2008	Graduate Teaching Assistant, Department of Computer Science, University of Alabama in Huntsville, Huntsville, AL.
2002 – 2006	Graduate Research Assistant, Department of Computer Science, University of Alabama in Huntsville, Huntsville, AL.

B. Administrative Positions

2019 – present	Chair of Computer Science, Bowling Green State University, Bowling Green, OH.
2018 – 2019	Acting Chair of Computer Science, Bowling Green State University, Bowling Green, OH.

III. Teaching Experiences

A. Undergraduate Courses Taught (and number of sections):

1. at Bowling Green State University

   CS 1000 Computer Basics (1)
   CS 2010 Programming Fundamentals (7)
   CS 2020 Object-oriented Programming (1)
   CS 2170 Computer Organization (8)
   CS 2900 Career Preparation in Computing Fields (1)
   CS 3010 Information Management Technologies (5)
   CS 3270 Operating Systems and Networks (3)
   CS 3800 Special Topics in CS: Multimedia (1)
   CS 4080 Advanced Operating System (4)
   CS 4170 Intro. to Parallel Computing (1)
   CS 4200 Artificial Intelligence Methods (4)
   CS 4250 Computer Graphics (9)

2. at the University of Alabama in Huntsville

   CS 102 Introduction to C Programming (5)

B. Graduate Courses Taught (and number of sections):

1. at Bowling Green State University

   CS 5080 Operating Systems (4)
   CS 5170 Intro. to Parallel Computing (1)
   CS 5200 Artificial Intelligence Methods (4)
   CS 5250 Computer Graphics (9)
   CS 6070 Architecture of Computers (1)
   CS 6110 Automata and Computability Theory (1)
   CS 6200 Advanced Topics in Artificial Intelligence (4)
   CS 6250 Advanced Computer Graphics (6)

CS 6260 Visualization (2)
CS 6800 Seminar in CS: Volume Visualization (1)
CS 6800 Seminar in CS: Visualization and HPC (1)

C. Other Teaching (and number of sections):

1. at Bowling Green State University

CS 4900 Undergraduate Independent Study (2)

- Fall 2017: Benjamin C. Thornton
- Fall 2017: Gangotri Patel

D. Thesis & Dissertation Committee and Graduate Project Advisor Services

Student's Name	Year	University
1. Chair of Thesis Committee		
Glen Hordemann	2013	BGSU/CS
Woon Khang Tang	2010	BGSU/CS
2. Member of Thesis Committee		
Dewa Chaulagain	2019	BGSU/CS
Shubhendra Shrima	2016	BGSU/CS
Jeremy Storer	2016	BGSU/CS
Saba Jamalian	2015	BGSU/CS
Tracey Raybourn	2013	BGSU/CS
Eman Aldakheel	2011	BGSU/CS
3. Member of Dissertation Committee		
Serge Phanzu	2020	BGSU/MATH
Lauren O'Connor	2019	BGSU/ACS
Hayfa Almutairi	2018	BGSU/Chemistry
Yang Liu	2015	BGSU/MATH
Mark Huntress	2012	BGSU/MATH
4. Graduate Project Advisor		
Shadi Moradi	2020	BGSU/CS
Halyee Liska	2019	BGSU/CS
Ben Forster	2019	BGSU/CS
Zhe Qi	2018	BGSU/CS
Ali Shakiba	2017	BGSU/CS
Somphong Khanthabouth	2016	BGSU/CS
Ruidong Guo	2014	BGSU/CS
Thomas Harris	2014	BGSU/CS

Andries Smith	2013	BGSU/CS
Yilin Gu	2013	BGSU/CS
Xiaosong Zou	2013	BGSU/CS
Luke West	2012	BGSU/CS
Hao Hu	2012	BGSU/CS
Nicholas White	2012	BGSU/CS
Ronald Ngatuni	2011	BGSU/CS
Zach Taylor	2011	BGSU/CS
Stephen Durfey	2011	BGSU/CS
Mark Randles	2010	BGSU/CS
Yuanhua Liu	2010	BGSU/CS

IV. Curriculum Development

2020	Undergraduate Course Development: Distance learning for CS 2900. CS 3080, CS 3350, CS 6260; Remote Learning for CS 3060, CS 3320, CS 4200/5200.
2019	New CS 2900 course- from "Co-op Preparation" (1 hr.) to "Career Preparation in Computing Fields" (2 hrs.) with contents change
2018 – 2019	New Undergraduate Specialization Development: Computation Data Science
2018	Undergraduate Course Development: CS 2190 (Computer Organization)
2018	Undergraduate Course Changes: Distance learning for CS 2010 & CS 2020; Eliminate CS 2170, CS 3270, CS 4080, CS 4290; Title/Prerequisite Change for CS 1000, CS 1050, CS 2010, CS 2020, CS 3350
2018	Program Modification: Minor changes in CS minor; helped re-submitting Digital Forensics specialization changes
2018	Graduate Course Change: Eliminate CS 5080 and CS 5290
2016 - 2018	Program Development: New Ph.D. & M.S. program in Data Science
2017	Graduate Course Development: CS 6010 (Data Science Programming), CS 6260 (Visualization), CS 7200 (Machine Learning), CS 7300 (Unsupervised Feature Learning)

2016	Program Modification: BS/CS, BA/CS, BS/SE (new admission requirement- MATH 1210)
2016	Program Modification: BA/CS (new experiential learning requirement) Undergraduate Course Development: New course- *CS 3950. Experiential Learning*.
2016	Program Modification: BS/CS, BA/CS (change in Statistics requirements)
2016	Undergraduate Course Changes: Catalog Description change in CS 3600 and CS 1000.
2016	New Undergraduate Major Development: *BS in Software Engineering*
2015	Undergraduate Course Change: Eliminate CS 4510 and CS 4520.
2014	Program (Specialization) Development: *BS/CS, Software Engineering Specialization*.
2014	Undergraduate Course Development: *CS 3060. Programming Languages* (New course replacing CS 3010).
2014	Program Modification: *BS/CS, BA/CS*, (Change in Statistics requirements)
2013	Program Modification: *BS/CS*, (Inclusion of new Program Educational Objectives and Learning Outcomes)
2013	Undergraduate Course Modification: *CS 4200. Artificial Intelligence Methods*, (Prerequisite change)
2012	Undergraduate Course Modifications: *CS 2010. Programming Fundamentals, CS 2020. Object-oriented Programming, CS 3270. Operating Systems and Networks, CS 3350. Standard Data Structures and Algorithms*, (changing prerequisite structure of core CS courses)
2012	Graduate Course Development: *CS 5120. Design and Analysis of Algorithms*, (Modifying existing course, CS 6120)
2010 – 2012	Member of Committee that proposed new MS/CS specializations and related courses; *Information Security, Professional Software Engineering, and Visualization and High Performance Computing*.

2011	Developed a new CS CUE course entitled *Evolution and Transformative Power of Computing: From Stone to Silicon*. (This course was not approved as a CUE course.)

V. Professional Development

2020	Participated in BGSU CFE Workshop: Producing Canvas Videos with Canvas Studio Software (08/12/2020)
2020	Participated in CRA Departmental BPC Plan Writing Workshop (08/06-07/2020)
2020	Participated in BGSU CFE Flex Conference (07/27-28/2020)
2020	Participated in REMOTE: The Connected Faculty Summit (hosted by ASU) (07/13-14/2020)
2020	Participated in EAB Webinar: Optimizing Your Institution's Program Portfolio (06-10-2020)
2020	Participated in Virtual CVPR (Computer Vision and Pattern Recognition) 2020 Conference (May-June, 2020)
2020	Participated in Safegraph Online Seminar: Leveraging Data to Support Local Government and Nonprofit Partners in COVID-19 Response by Derek Ouyang, Stanford (05/20/2020)
2020	Participated in Nvidia Webcast: Clara SDKs Enabling Training Through Development for COVID-19 Research (05/19/2020)
2020	Participated in EAB Webinar: Redesigning Courses for Virtual Fall Delivery (05/13/2020)
2020	Participated in Nvidia Webcast: Using GPUs to Analyze COVID-19 Short Read Sequencing Data (04/14/2020)
2020	Participated in GTC (GPU Technology Conference) (Spring 2020)
2019	Participated in NSF Webcast: CISE Distinguished Lecture Series (11/22/2019)
2019	Participated in BGSU ALLIES program as a faculty allies (Spring 2019)

2019	Participated in CFE Workshop: Canvas Conference and WebEx Workshop, (06/12/2019)
2019	Participated in ABET Symposium and Self-study Development and Fundamental of Programming Assessment Workshops (14 hours of professional development hours), (04/11/2019)
2019	Participated in 2019 BGSU Teaching & Learning Summit, (03/01/2019)
2019	Participated in 2019 Ohio Celebration of Women in Computing Conference, (02/22/2019)
2019	Participating in Webinar: Cyberinfrastructure for sustained scientific innovation, NSF SCCI Webinar, (02/21/2019)
2019	Participated in Webinar: Accelerating Data Science Workflows with RAPIDS, Nvidia, (01/22/2019)
2018	Participated in CFE Workshop: Adv. Quiz Workshop 109, (04/19/2018)
2018	Participated in Webinar: Deep Learning on Your Desktop with Nvidia GPU Cloud and Nvidia Titan, (03/07/2018), Nvidia
2017	Participated in Process Oriented Guided Inquiry Learning (POGIL) Teaching Workshop, (11/04/2017), Tiffin, OH
2017	Participated in Webinar: PD: Solving Deep Learning Deployment Challenges with NVIDIA TensorRT, (10/31/2017), Nvidia
2017	Participated in Webinar: How AI is Transforming Healthcare, (06/29/2017), Nvidia
2017	Participated in OSC HPC Workshop (01/26/17) at BGSU
2016	Participated in Four Deep Learning Workshop Trainings at GTCDC2016 (Oct. 26, 2016 - Oct. 27, 2016) - Getting Started with Deep Learning - Deep Learning for Object Detection - Deep Learning Network Deployment - Deep Learning Image Segmentation
2016	Participated in NSF IUSE E&D for ESL and ICT webinar (office hours)
2015	Participated in CFE Workshop: Flipped Classroom

2014	Participated in CFE training: Canvas 202, Intro. to Online Course Design and Teaching
2014	Participated in CFE's training: Active Learning Classroom Training
2014	Participated in Webinar: Canvas- The Peer Review Feature as a Powerful & Efficient Tool to Inspire Great Work
2013 – 2014	Participated in CTL's Learning Community: Digital Humanities Project Management
2014	Participated in AAC&U TIDES (Teaching to Increase Diversity and Equity in STEM) Program Webinar.
2013	Participated in three of BGSU CTL workshops: (1) Learning about Teaching-Reinvigorating the Lecture; (2) Generating Assessment & Feedback-Offering Feedback that Improves Student Learning; and (3) Learning about Teaching-Practical Teaching Techniques.
2013	Participated in a two-day OpenACC GPU Programming Workshop at the Ohio Supercomputing Center.
2012	Participated in the 2012 International Conference on Parallel and Distributed Processing Techniques and Applications.
2012	Participated in the 2012 International Conference on Image Processing, Computer Vision, and Pattern Recognition.
2012	Participated in 2012 NSF CISE CAREER Proposal Writing Workshop.
2012	Participated in two NVIDIA's Webinars; Introducing CUDA 5: New Features and Benefits, Nsight Eclipse Edition: High Productivity IDE for CUDA Development on Linux & MacOS.
2012	Participated in the NSF BIGDATA Webinar.
2011	Participated in the 16th International Conference on Transformative Science, Engineering, and Business Innovation.
2011	Participated in Professional Ethics Workshop at the 2011 SIGCSE Conference.

2011	Participated in the 19th International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision.
2010	Participated in 2010 International Conference on Image Processing, Computer Vision, and Pattern Recognition.
2010	Participated in a one-day General Purpose GPU (GPGPU) Workshop at the Ohio Supercomputing Center.
2010	Participated in four two-hour NVIDIA's webinars; Parallel Nsight- An Introductional Overview, GPU Computing using CUDA- An Introduction, GPU Computing using CUDA C- Advanced I, GPU Computing using CUDA C- Advanced 2.

VI. Academic Advising

A. Undergraduate

Year	Number of Students
2020	3 advisee (Undergraduate Research)
2014	147 advisees (CS Freshmen & Sophomore Advisor)
2011	68 advisees (CS Junior Advisor)
2010	72 advisees (CS Sophomore Advisor)
2009	55 advisees (CS Freshmen Advisor)

B. Graduate

Year	Number of Students
2020	1 advisee
2019	3 advisees
2018	3 advisees
2017	1 advisee
2016	1 advisee
2015	1 advisee
2014	2 advisees
2013	4 advisees
2012	4 advisees
2011	4 advisees
2010	3 advisees
2009	3 advisees
2008	1 advisee

VII. Research Interests

Visualization
Computer Vision
Pattern Recognition
Machine Learning
High-performance Computing
Computer Graphics

VIII. Research Projects and Grants

A. Grants Under Review

None

B. Funded Grants

2020	Ohio Department of Higher Education- Choose Ohio First (COF) Scholarship Proposal, Proposal Title: *Increasing Diversity in Computer Science and Software Engineering* (PI: $1,143,450; funded for 2020-2024)
2018	The David and Amy Fulton Endowed Professorship, Bowling Green State University (PI, $30,000)
2016	Speed Grant, Bowling Green State University (PI, $400)
2013	Speed Grant, Bowling Green State University (PI, $400)
2011	FRC "Building Strength" Grant Program, Travel Grants, Bowling Green State University, Proposal Title: *2012 NSF CISE CAREER Proposal Writing Workshop* (PI, $750)
2011	NVIDIA Professor Partnership Program, Nvidia GTX 480 Graphics Processing Unit (PI: $500)
2011	Speed Grant, Bowling Green State University (PI: $400)
2010	Adobe Systems Inc., Premiere Elements 8 (PI: $3,000)
2009	NVIDIA Professor Partnership Program, Nvidia Quadro FX 5800 Graphics Processing Unit (PI: $4,000)

C. Unfunded Grants

2019 NIH Grant Proposal, Proposal Title: *Cell Features for Understanding Signaling: Dealing with Complexity in Cell Biology*, (as a consultant with a GA support, revision was submitted)

2018 NIH Grant Proposal, Proposal Title: *Cell Features for Understanding Signaling: Dealing with Complexity in Cell Biology*, (as a consultant with a GA support, Project's total budget: $923,000)

2018 Defense Medical Research and Development Program Grant Pre-proposal, Pre-proposal Title: *Chemopreventive Agents as a Practical Approach to Lung Cancer Prevention*, (as a consultant with a GA support)

2016 NCWIT Academic Alliance 2017 Seed Fund Award, Proposal Title: *Exploring CS with Mentors (ECSM)*, (PI, $10,000)

2016 BGSU SEA Change Venture, Proposal Title: Active-learning-based CS Principle Course Design, (PI, $18,901.95)

2014 NSF DUE-IUSE-Engaged Student Learning: Exploration, Proposal Title: *Supporting CS-focused STEM Education via Active Learning, Mentoring, and Scholarships*, (PI, $250,000)

2014 Google Faculty Research Awards, Proposal Title: *Feature Archetypes to aid in Image Searching*, (Co-PI, $39,590)

2014 Silicon Mechanics Research Cluster Grant, Proposal Title: *Silicon Mechanics Research Cluster Grant*, (Co-PI, $190,000)

2014 AAC&U Teaching to Increase Diversity and Equity in STEM (TIDES) Program, Proposal Title: *Attracting, Mentoring, Supporting and Retaining Underrepresented Students in Computer Science*, (PI, $299,498)

2013 NSF Computing Research Infrastructure (CRI) Program, Proposal Title: *II-New: Accelerator-based Heterogeneous Computing Infrastructure for Data-Driven & Information-Driven Applications* (PI, $750,000)

2013 NSF CAREER Program, Proposal Title: *CAREER: Transformative Visualization of Change Over Time for Information Discovery* (PI, $435,086)

2013 NIH R21 Program, Proposal Title: *Computational Support Systems for Compounding Sterile Products* (CO-PI, $407,888, Joint Proposal with University of Toledo)

2013 Google Faculty Research Awards, Proposal Title: *Efficient and Dynamic Bucketization Techniques for Encrypted Databases* (PI, $43,463)

2013 NSF Integrated NSF Support Promoting Interdisciplinary Research and Education Program, Proposal Title: *Integrating Complex Spatial Data Sources using Interactive Analysis and Visualization Techniques* (CO-PI, Joint Proposal Letter of Intent with BGSU Center for Regional Dev.)

2013 NSF Integrated NSF Support Promoting Interdisciplinary Research and Education Program, Proposal Title: *Track 1: Compounded Sterile Preparations in Education and Practice: Cyber-physical Methods for Reducing Errors and Saving Lives* (CO-PI, $800,000, Joint Proposal Letter of Intent with University of Toledo)

2012 NSF Core Techniques and Technologies for Advancing Big Data Science & Engineering Program, Proposal Title: *BIGDATA: Mid-Scale: DA DCM: Patient-specific predictive modeling for diagnosis of structural heart diseases* (CO-PI, $966,386, Joint Proposal with University of Toledo)

2012 NSF Transforming Undergraduate Education in Science Program, Proposal Title: *TUES: Enhancing Undergraduate Experience in High Performance Computing, Visualization, and Virtual Reality* (PI, $199,058)

2012 Google Faculty Research Awards, Proposal Title: *New Robust Feature Segmentation and Effective Change Visualization Techniques for Information Discovery in Interdisciplinary Data* (PI, $38,030)

2011 NSF Computer Research Infrastructure Program, Proposal Title: *II-NEW: Heterogeneous Wireless Infrastructure for Distributed and Dynamically Scalable Agile Data Centers* (CO-PI, $1,000,000, Joint Proposal with University of Toledo)

2011 FRC "Building Strength" Grant Program: Project Grants, Bowling Green State University, Proposal Title: *New High Performance Infrastructure for Computer Science and Interdisciplinary Research Projects* (PI, $10,000)

2011 NSF CAREER Program, Proposal Title: *CAREER: Automated Processing and Visualization Techniques for Data Discovery in Solar Magnetic Field Data* (PI, $432,226)

2010 National Aeronautics and Space Administration (NASA): Living with a Star Targeted Research and Technology, Proposal Title: *Automated Coronal Loop Identification* (PI, $233,085)

IX. Publications

A. Refereed Articles

1. Journals

2020 Sungho Cho, J. Lucy Lee, June Won, and Jong Kwan Lee, "Empirical Investigation of Sport Trademark Dilution by Using Contingent Valuation Method," ***Journal of Sport Management***, Vol. 34 (3), May 2020, pp. 189–200.

2018 Abbas Shakiba and Jong Kwan Lee, "Web-VizLib: Web-Tool for Visualizing Library Data," ***Journal of Industrial Information Technology and Application***, Vol. 2, No. 3, Sep. 2018, pp. 145–150.

2014 Gilmer A. Gary, Quiang Hu, Jong Kwan Lee, and Markus J. Aschwanden, "Determining the 3D Structure of the Corona Using Vertical Height Constraints on Observed Active Region Loops," ***Solar Physics***, Vol. 289, No. 10, 2014, pp. 3703–3721.

2014 Gilmer A. Gary, Quiang Hu, and Jong Kwan Lee, "A Rapid, Manual Method to Map Coronal-Loop Structures of an Active Region Using Cubic Bezier Curves and Its Applications to Misalignment Angle Analysis," ***Solar Physics***, Vol. 289, No. 3, 2014, pp. 847–865.

2012 Jong Kwan Lee and Timothy S. Newman, "Exploring GPU- and Cluster-based Improvements for Over-sampling Volume Ray Casting Opacity Correction," ***International Journal of Image and Graphics***, Vol. 12, No. 4, 2012, pp. 125000250-1 – 125000250-26.

2010 Brian A. Wood, Jong Kwan Lee, Manil Maskey, and Timothy S. Newman, "Higher Order Approximation Normals and Their Impact on Isosurface Shading Accuracy," ***Machine Graphics and Vision***, Vol. 29, No. 2, 2010, pp. 201–221.

2008 Markus J. Aschwanden, Jong Kwan Lee, G. Allen Gary, Michael Smith, and Bernd Inhester, "Comparison of Five Numerical Codes for Automated Tracing of Coronal Loops," ***Solar Physics***, Vol. 248, Num. 2, 2008, pp. 359–377.

2007 Jong Kwan Lee and Timothy S. Newman, "New Method for Opacity Correction in Oversampled Volume Ray Casting," ***Journal of WSCG***, Vol. 25, 2007, pp. 1–8.

2006 Jong Kwan Lee, Timothy S. Newman, and G. Allen Gary, "Oriented Connectivity-based Method for Segmenting Solar Loops," ***Pattern Recognition***, Vol. 39, 2006, pp. 246–259.

2. Proceedings

2019 Zhe Qi and Jong Kwan Lee, "Automated Object Tracking in Sterile Pharmacy Compounding," ***Proc., 27th International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG 2019)***, Plzen, Czech Republic, May 2019, pp. 137–142.

2015 Hussein S. Al-Olimat, Mansoor Alam, Rob Green, and Jong Kwan Lee, "Cloudlet Scheduling with Particle Swam Optimization," ***Proc., 2015 The 1st International Conference on Communication Systems and Computing Application Science***, Jeju Island, South Korea, May 16–17, 2015, Paper ID 13.

2015 Samraddhi Shastri, Ray Kresman, and Jong Kwan Lee, "An Improved Algorithm for Querying Encrypted Data in the Cloud," ***Proc., 2015 The 1st International Conference on Communication Systems and Computing Application Science***, Jeju Island, South Korea, May 16–17, 2015, Paper ID 14.

2014 Glen Hordemann, Jong Kwan Lee, and Andries H. Smith, "Accelerated SQLite Database using GPUs," ***Proc., 22nd International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG 2014)***, Plzen, Czech Republic, June 2014, pp. 247–256.

2013 Yilin Gu, Andries H. Smith, Jong Kwan Lee, Xinyue Ye, and Soo K. Kim, "Effective Visualization Tool for Job Searching," ***Proc., 2013 International Conference on Modeling, Simulation, and Visualization Method (MSV'13)***, Las Vegas, July 2013, pp. 80–86.

2013 Andries H. Smith, Jong Kwan Lee, Hao Hu, and Eric S. Mandell, "Hough Transform-based Technique for Automated Carbon Nanocone Segmentation," ***Proc., 21st International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG 2013)***, Plzen, Czech Republic, June 2013, pp. 19–28.

2013 Gilmer Allen Gary, Quiang Hu, and Jong Kwan Lee, "Coronal Loop Mapping to Infer the Best Magnetic Field Models for Active Region Prominences," ***Proc., IAU Symposium Vol. 300: Nature of Prominences and Their Role in Space Weather***, Paris, France, June 2013, pp. 416–417.

2013 Tracey Raybourn, Jong Kwan Lee, and Ray Kresman, "On Privacy Encrypted Data Stores," ***Lecture Notes in Electrical Engineering 240, Multimedia and Ubiquitous Engineering (MUE 2013)***, Vol. I, 2013 pp. 219–226.

2012 Luke West and Jong Kwan Lee, "Performance Comparison Between Cg-based and CUDA-based Matrix Multiplications," ***Proc., 2012 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'12)***, Las Vegas, July 2012, pp. 808–812.

2012 Ronald Ngatuni, Jong Kwan Lee, Luke West, and Eric S. Mandell, "New Hough Transform-based Algorithm for Detecting L-shaped Linear Structures," ***Proc., 2012 International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV'12)***, Las Vegas, July 2012, pp. 641–646.

2011 Zachary D. Taylor and Jong Kwan Lee, "On RHT-based Ellipsoid Recovery Method," ***Proc., 16th International Conference on Transformative Science, Engineering, and Business Innovation (SDPS 2011)***, Jeju, South Korea, June 2011, Paper ID 166: pg. 1–6.

2011 Jong Kwan Lee and Woon Khang Tang, "Snake-based Technique for Automated Coronal Loop Segmentation," ***Proc., 19th International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG 2011)***, Plzen, Czech Republic, January 2011, pp. 33–40.

2010 Jong Kwan Lee and Mark L. Randles, "Efficient Ellipse Detection using GPU-based Linear Least Squares-based Randomized Hough Transform," ***Proc., 2010 International Conference on Image Processing, Computer***

Vision, and Pattern Recognition (IPCV'10), Las Vegas, July 2010, pp. 714–719.

2009 Jong Kwan Lee and G. Allen Gary, "Recovery of 3D Solar Magnetic Field Model Parameter using Image Structure Matching," ***Proc., Fourth International Conference, MIRAGE 2009, Lecture Notes in Computer Science 5496***, Springer 2009, pp. 172–181.

2008 Jong Kwan Lee, Brian A. Wood, and Timothy S. Newman, "Very Fast Ellipse Detection using GPU-based RHT," ***Proc., IEEE 19th International Conference on Pattern Recognition***, Tampa, Florida, December 2008, pp. 1–4.

2008 Cuilan Wang, Timothy S. Newman, and Jong Kwan Lee, "On Accuracy of Marching Isosurfacing Methods," ***Proc., IEEE/EuroGraphics International Symposium on Volume and Point-based Graphics (VG'08)***, Los Angeles, CA, August 2008, pp. 49–56.

2008 Jong Kwan Lee and Timothy S. Newman, "Acceleration of Opacity Correction Mechanisms for Over-sampled Volume Ray Casting," ***Proc., Eurographics Symposium on Parallel Graphics and Vis. (EGPGV '08)***, Crete, Greece, April 2008, pp. 17–24.

2008 Jong Kwan Lee, Manil Maskey, Timothy S. Newman, Brian A. Wood, and Cuilan Wang, "Evaluation of High Order Approximating Normals for Marching Cubes," ***Proc., IEEE SoutheastCon 2008***, Huntsville, AL, April 2008, pp. 593–598.

2007 Jong Kwan Lee, Timothy S. Newman, and Cuilan Wang, "Voxel Averaging-based Opacity Correction for Oversampled Volume Ray Casting," ***Proc., International Conference on Modeling, Simulation, and Visualization Methods '07***, Las Vegas, June 2007, pp. 295–301.

2006 Jong Kwan Lee, Timothy S. Newman, and G. Allen Gary, "Dynamic Aperture-based Solar Loop Segmentation," ***Proc., 7th IEEE Southwest Symposium on Image Analysis and Interpretation***, Denver, March 2006, pp. 91–94.

2004 Jong Kwan Lee, Timothy S. Newman, and G. Allen Gary, "Automated Detection of Solar Loops by the Oriented Connectivity Method," ***Proc., 17th International Conference on Pattern Recognition***, Cambridge, UK, Aug. 2004, pp. IV315–IV318.

3. (Extended) Abstract

2019 Juangtak Ryu and Jong Kwan Lee, "Deep Learning-based Face Identification System," ***Proc., International Symposium on Innovation in Information Technology and Applications***, Okinawa, Japan, Feb. 11 – 13, 2019.

2018 Sungho Cho, J. Lucy Lee, June Won, and Jong Kwan Lee, "Loss of Brand Equity from Sport Trademark Dilution: Computerized Experimental Framework," ***The 16th Annual Sport Marketing Association (SMA) Conference***, Dallas, Oct. 24 - 26, 2018.

2018 Sungho Cho, J. Lucy Lee, June Won, and Jong Kwan Lee, "Measuring Sport Trademark Dilution: Empirical Framework for Trademark Valuation," ***The Sport and Recreational Law Association 2018 Conference***, San Antonio, Feb 28 - March 3, 2018.

2018 Abbas Shakiba and Jong Kwan Lee, ""L-Visualizer" for Exploring Library Data," ***Proc., International Symposium on Innovation in Information Technology and Applications***, Kata Kinabalu, Malaysia, Jan. 30 – Feb. 2, 2018.

B. Non-Refereed Articles

1. Proceedings/Abstracts

2013 Hyung Woo Choi, Kyu-Sung Lee, Barry O'Brien, Yong Kyun Lee, Jong Kwan Lee, Kyoung Ik Cho, and T. L. Alford, "Low cost, mass producible, and refusable biosensors on flexible paper and polyethylenenaphthalate (PEN) substrates," ***12th Annual Flexible & Printed Electronics Conference & Exhibition***, Phoenix, AZ, Jan. 2013.

2007 Jong Kwan Lee, "More Accurate Correction of Opacity Composition Artifacts in Oversampled Volume Ray Casting," Abstract Book, ***ACM Mid-Southeast Conf.***, Gatlinburg, TN, Nov. 2007.

2004 Jong Kwan Lee, G. Allen Gary, and Timothy S. Newman, "Automated Coronal Loop Identification using Digital Image Processing Techniques II," ***Solar Image Processing II Workshop***, Annapolis, MD, Nov. 2004.

2003 Jong Kwan Lee, G. Allen Gary, and Timothy S. Newman, "Automated Coronal Loop Identification using Digital Image Processing Techniques," ***34th Meeting of AAS Solar Physics Division***, Laurel, MD, May 2003.

C. Manuscripts under Review/in Preparation

2020 Ben Forster, Jong Kwan Lee, and Sankar Roy, "Exploration of Machine Learning Algorithms for Android App Classification," The 16th International Conference on Data Science.

X. Paper Presentations

A. Invited Talks

2015 [Keynote Speech] "Scientific Information Recovery in the Areas of Visualization and Computer Vision using Large Application Data," **The 15th International Conference on Computers, Communications, and Systems**, Gyeoungsan, South Korea, Nov. 6, 2015.

2011 **"**Scientific Information Recovery in the Areas of Visualization and Computer Vision," **Han Sung University, Dong Myung Jung Bo University, Dong Hwi University, Kyungpook National University**, South Korea, May-June 2011.

B. Refereed Papers

2019 "Automated Object Tracking in Sterile Pharmacy Compounding," 27th International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG 2019), Plzen, Czech Republic, May 2019.

2015 "Cloudlet Scheduling with Particle Swam Optimization," Proc., 2015 The 1st International Conference on Communication Systems and Computing Application Science, Jeju Island, South Korea, May 16-17, 2015.

2015 "An Improved Algorithm for Querying Encrypted Data in the Cloud," 2015 The 1st International Conference on Communication Systems and Computing Application Science, Jeju Island, South Korea, May 16-17, 2015.

2014 "Accelerated SQLite Database using GPUs," 22nd International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG 2014), Plzen, Czech Republic, June 2014.

2013 "Effective Visualization Tool for Job Searching," 2013 International Conference on Modeling, Simulation, and Visualization Method (MSV'13), Las Vegas, July 2013.

2013 "Hough Transform-based Technique for Automated Carbon Nanocone Segmentation," 21st International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG 2013), Plzen, Czech Republic, June 2013.

2012 "Performance Comparison Between Cg-based CUDA-based Matrix Multiplications," 2012 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'12), Las Vegas, July 2012.

2012 "New Hough Transform-based Algorithm for Detecting L-shaped Linear Structures," 2012 International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV'12), Las Vegas, July 2012.

2011 **"**On RHT-based Ellipsoid Recovery Method," 16th International Conference on Transformative Science, Engineering, and Business Innovation (SDPS 2011), Jeju, South Korea, June 2011.

2011 "Snake-based Technique for Automated Coronal Loop Segmentation," 19th International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG 2011), Plzen, Czech Republic, January 2011.

2010 "Efficient Ellipse Detection using GPU-based Linear Least Squares-based Randomized Hough Transform," 2010 International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV'10), Las Vegas, July 2010.

2009 "Recovery of 3D Solar Magnetic Field Model Parameter using Image Structure Matching," Fourth Int'l Conference on Computer Vision/computer Graphics Collaboration Techniques (MIRAGE 2009), France, May 2009.

2008 "Acceleration of Opacity Correction Mechanisms for Over-sampled Volume Ray Casting," Eurographics Symposium on Parallel Graphics and Visualization (EGPGV '08), Crete, Greece, April 2008.

2007 "Voxel Averaging-based Opacity Correction for Oversampled Volume Ray Casting," International Conference on Modeling, Simulation, and Visualization Methods '07, Las Vegas, June 2007.

2007 "New Method for Opacity Correction in Oversampled Volume Ray Casting," 15th Int'l Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision 2007, Pilsen, Czech Republic, Jan.-Feb. 2007.

2006 "Dynamic Aperture-based Solar Loop Segmentation," 7th IEEE Southwest Symposium on Image Analysis and Interpretation, Denver, March 2006.

2004 "Automated Detection of Solar Loops by the Oriented Connectivity Method," 17th International Conference on Pattern Recognition, Cambridge, UK, Aug. 2004.

C. Non-Refereed Papers

2007 "More Accurate Correction of Opacity Composition Artifacts in Oversampled Volume Ray Casting," ACM Mid-Southeast Conference, Gatlinburg, TN, Nov. 2007 (*Top Presentation Award*).

2006 "Fast Correction of Oversampling Artifacts in Direct Volume Rendering via an Intensity-based Approach," First UAH-College of Science Student Conference, Huntsville, AL, Nov. 2006.

2004 "TRACE Coronal Image Analysis Software Beta Ver. 1.00," Solar Image Processing Workshop II, Annapolis, MD, Nov. 2004.

2004 "Automated Coronal Loop Identification using Digital Image Processing Techniques II," Solar Image Proc. II Workshop, Annapolis, MD, Nov. 2004.

2004 "Automated Coronal Loop Identification," Huntsville 2004 Workshop: Challenges to Modeling the Sun-Earth System, Huntsville, AL, Oct. 2004.

2003 "Automated Coronal Loop Identification using Digital Image Processing Techniques," 34th Meeting of AAS Solar Physics Division, Laurel, MD, May 2003.

XI. Service

A. Department

2018 – present	Chair, Executive Committee
2017 – 2019	Sub-committee (Program) Chair, CS 50th Ann. Celebration Committee
2008 – present	Preview Day, President's Day, STEM's Day, etc. (various times)
2018	Member, CS Instructor Search Committee
2017 – 2018	Ad-hoc Committee: CS Marketing Committee
2017 – 2018	Faculty Mentor for Michael Decker and Yan Wu
2015 – 2018	Member, Executive Committee
2014 – 2018	Chair, Undergraduate Committee (Undergraduate Coordinator)
2017	Ad-hoc Committee: Narayen Proposal Review Committee (2017 Spring)
2016	Ad-hoc Committee: CS Retention Committee (2016 Fall)
2015 – 2106	Member, Continuous Improvement Committee
2014 – 2015	CS Freshmen & Sophomore Advisor
2011 – 2014	Member, Graduate Committee
2011 – 2014	Member, Undergraduate Committee
2013 – 2014	Chair, Assessment Committee
2013	Chair, CS Instructor Search Committee
2012	Chair, CS Instructor Search Committee
2011 – 2012	Computer Science Junior Advisor
2010 – 2011	Computer Science Sophomore Advisor
2009 – 2010	Computer Science Freshmen Advisor

B. College

2020 – present	A&S Council Member (Rep. Council of Chairs, 2020-2022)
2020 – present	A&S Chair Steering Committee
2020	Search Committee Member, A&S Sr. Admin Secretary Search
2014 – 2018	Member, A&S Diversity Committee

C. University

2020	Search Committee Member, ITS Manager Search
2017 – present	Member, Asian Studies Advisory Committee
2012 – present	Founding Member, the South Korea Affinity Group
2012 – present	Member, Korean Student Association Advisory Board
2018	Reviewer, BGSU- NSF SEA Change Ventures Grant Applications
2017 – 2019	Faculty Advisor, BGSU Korean Club
2016 – 2019	Member, Undergraduate Council
2016 – 2018	Member, Program Development Committee, Ph.D. Data Science
2010 – 2016	Member, Faculty Senate
2013	Advisor, SetGo Undergraduate Research Program
2013	Review Committee, Charles E. Shanklin Research Award
2012	Review Committee, Charles E. Shanklin Research Award
2011	Member, Distinguished Dissertation Award Review Committee
2010	Member, Search Committee for Coordinator for Student Immigration Services

D. Professional

2020	Journal manuscript reviews: Multimedia Tools and Application Journal (3 times)
2020	Journal manuscript review: Physics in Medicine and Biology (1 time)
2020	CS/IT Faculty Panel for Ohio Guaranteed Transfer Pathways in Department of Higher Education (05/01/2020)
2020	Organizing Co-Chair and Conference manuscript reviews: 2020 International Symposium of Innovation in Information Technology and Application (3 papers)
2019	Journal manuscript reviews: Multimedia Tools and Application Journal (2 times)
2019	Conference manuscript reviews: 2019 The 27th International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG'19), (3 papers)
2019	Resume reviewer and Undergraduate panel: Ohio Celebration of Women in Computing Conference, Feb. 22-23, 2019
2019	Proposal review: National Center for Women & Information Technology (NCWIT) See Fund Proposals
2019	Book review: Essentials of Pattern Recognition by Jianxin Wu of Nanjing University, Higher Education Division of Cambridge University Press
2018	Conference manuscript reviews: International Symposium on Innovation in Information Technology Application (ISIITA) 2019 (2 papers)
2018	Journal manuscript reviews: Multimedia Tools and Application Journal (5 times)
2018	Conference manuscript reviews: 2018 The 26th International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG'18)
2017	Conference manuscript reviews: 2017 Midstates Conference for Undergraduate Research in Computer Science and Mathematics

2017	Journal manuscript reviews: Multimedia Tools and Application Journal (1 time)
2017	Conference manuscript reviews: 2017 The 25th International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG'17)
2016	Journal manuscript reviews: Multimedia Tools and Application Journal (6 times)
2016	NSF Grant Panelist, IIS Geosciences.
2015	Conference Chair, 2015 Midstate Conference for Undergraduate Research in Computer Science & Mathematics, Bowling Green State University, Nov. 14, 2015.
2015	Journal manuscript reviews: Multimedia Tools and Application Journal, Physics in Medicine and Biology Journal
2015	Conference manuscript reviews: 2015 The 23rd International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG'15)
2013	Session Chair, 21st International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision (WSCG'13)
2013	Program Committee, International Conference on Modeling, Simulation, & Visualization Methods (MSV'13)
2013	Elsevier Book Reviewer, Title: "Patterns for Data Parallel Programming"
2012	NSF Grant Panelist, IIS Graphics and Visualization.
2012	Session Chair, International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV'07)
2011	Program Committee/Session Chair, International Conference on Transformative Science, Engr., and Business Innovation (SDPS 2011)
2010	Program Committee/Session Chair, International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV'10)
2007	Session Chair, International Conference on Modeling, Simulation, & Visualization Methods (MSV'07)

2007	Judge, Alabama Science and Engineering Fair, Huntsville, AL, 2007
2006 – 2014	Occasional manuscript referee for: Multimedia Tools and Application Journal, Physics in Medicine and Biology Journal, Measurement Science and Technology Journal, The Visual Computer Journal, Computer Methods and Programs in Biomedicine Journal, International Conference on Computer Vision/Computer Graphics Collaboration Techniques, International Journal of Computers and Applications, Pattern Recognition Journal, IEEE Visualization Conference, International Conference in Central Europe on Computer Graphics, Visualization, and Computer Vision, International Conference on Computer Graphics and Visualization, International Conference on Graphics and Visualization in Engineering

XII. Membership in Professional Organization

2001 – present	Member, Institute of Electrical and Electronics Engineers (IEEE)

XIII. Honors and Awards

2007	First Place (Ph.D. Track), Student Paper Content, ACM Mid-Southeast Conference
2004	Studentship Award, International Conference on Pattern Recognition
2003	Studentship Award, Solar Physics Div. of the American Astrophysics Society
2000	Scholarship, Kyungpook National University, Korea
1997	Scholarship, Kyungpook National University, Korea

XIV. References

Available upon request