

# Kibum Kim

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Associate Professor  
Division of Media, Culture and Design Technology  
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## RESEARCH INTERESTS

Human-Computer Interaction (HCI)	Computer-Supported Cooperative Work (CSCW)
Computer-Supported Collaborative Learning (CSCL)	VR/AR/MR
Gamification/Serious Game	Computer-Mediated Communication
Mobile Learning and Education	Assistive Technology
Tabletop and Large Wall Displays	Wearable Computing
Multi-modal interfaces	Ubiquitous Computing/Smart Environment
User-Centered Design	Prototyping

## EDUCATION

<i>Virginia Tech, Blacksburg, VA.</i>	2001 – 2006
Ph.D. in Computer Science, received Dec. 2006. Doctoral thesis: The Effects of Handheld Network Service “LOOK” on the Acquisition of Common Ground. Thesis Advisor: Deborah G. Tatar. Thesis Committee: Steven R. Harrison, Charles M. Patton (SRI International), Manuel A. Pérez- Quiñones, and Francis Quek.	
<i>University of Illinois, Urbana-Champaign, IL.</i>	1998 – 2001
Master in Computer Science, received Jan. 2001. Non-thesis degree that required 32 credit hours of graduate coursework. Research Advisor: Vaduvur Bharghavan (ECE). Worked on network packet switching simulators.	
<i>Korea University, Seoul, Korea</i>	1991 – 1998
B.S. in Computer Science and Engineering, received Feb. 1998.	

## TEACHING EXPERIENCE

*Hanyang University:*

Lecturer for “Mobile Game Programming”	09/2018 – 12/2018
Lecturer for “Game Programming Language”	09/2018 – 12/2018
Lecturer for “Game Design”	03/2018 – 07/2018
Lecturer for “Discrete Mathematics”	03/2018 – 07/2018

*Keimyung University:*

Lecturer for “Human-Computer Interaction”	09/2016 – 12/2016
Lecturer for “Java Programming”	09/2016 – 12/2016
Lecturer for “Game Artificial Intelligence”	03/2017 – 06/2017
Lecturer for “Immersive Software Project Design”	03/2017 – 06/2017
Lecturer for “Designing User-Centered Software (Graduate course)”	03/2017 – 06/2017
Lecturer for “Realistic User Interface (Korean)”	03/2017 – 06/2017
Lecturer for “Realistic User Interface (English)”	03/2017 – 06/2017
<ul style="list-style-type: none"><li>• Taught Epitech (Paris, France) exchange students (36 students) in English.</li><li>• Taught 3D user interface design and programming using Unity.</li></ul>	
Lecturer for “Immersive Software Project Design II”	09/2017 – 12/2017
Lecturer for “Software Development Techniques (Graduate course, English)”	09/2017 – 12/2017
Lecturer for “Data Structure”	09/2017 – 12/2017
Lecturer for “Human-Computer Interaction (Korean)”	09/2017 – 12/2017
Lecturer for “Human-Computer Interaction (English)”	09/2017 – 12/2017
<ul style="list-style-type: none"><li>• Taught Epitech (Paris, France) exchange students (20 students) in English.</li><li>• Taught the skills and concepts of human-computer interaction (HCI), which enables software engineers to design systems that effectively meet human needs. Specifically, it covers iterative design process, interactive prototype construction, discount evaluation techniques, and the historical context of HCI.</li></ul>	

*Chuncheon National University of Education:*

Lecturer for “Problem Solving with Computational Thinking”	03/2015 – 07/2015
<ul style="list-style-type: none"><li>• Taught how to do programming to undergraduate students who will become elementary school teachers after graduation.</li><li>• Taught three different departments including physical education, music education, and practical art education department.</li></ul>	

*Kochi University of Technology, Japan:*

Several Guest Lectures for “Introduction to HCI”	09/2013 – 03/2014
<ul style="list-style-type: none"><li>• Covered HCI theories for undergraduate students.</li><li>• Taught project-based HCI course for graduate students.</li><li>• Supervised term-project groups.</li></ul>	

*Queen’s University, Canada:*

Lecturer for “Introduction to Computing and the Creative Arts”	01/2012 – 05/2012
<ul style="list-style-type: none"><li>• Taught a range of skills applicable to interactive computing to undergraduate students for art history, drama, film and media, music, and computer science major.</li></ul>	

*Virginia Polytechnic Institute and State University, USA:*

- Teaching Assistant for “Introduction to Human-Computer Interaction” 01/2004 – 05/2004
- Assisted in teaching/grading of senior-level human-computer interaction course.
- Teaching Assistant for “Internet Programming” 08/2003 – 12/2003
- Assisted in teaching/grading of senior-level World Wide Web programming.
- Teaching Assistant for “Translator Design and Construction” 01/2003 – 05/2003
- Assisted in teaching/grading Pascal programming language compiler design for graduate-level course.
  - Assisted a term project for developing lexical analyzer, expression parser, recursive descent parser, symbol table integration, and code generation for parser.
- Teaching Assistant for “Introduction to Artificial Intelligence” 01/2002 – 05/2002
- Assisted in teaching/grading of graduate-level introduction to artificial intelligence course.
  - Assisted a term project for reinforcement learning.
- Teaching Assistant for “UNIX” 01/2002 – 05/2002
- Instructed laboratory-based Unix course for undergraduate students.

*University of Illinois at Urbana-Champaign, USA:*

- Statistical Computing Lab Instructor 08/1998 – 12/2000
- Instructed the statistics software programs in Windows NT computer lab.

**GRANTS, HONORS, AND AWARDS**

- **National Research Foundation of Korea (NRF) Individual Basic Science & Engineering Research Program Grant (2018) – Principal Investigator (PI)**  
The proposal was entitled “The Development and the Usability Evaluation of Multimodal VR Serious Game to Assist People with Visual Impairments”. Total awarded amount was ₩250,000,000 for three years.
- **Ministry of SMEs and Startups’ Industry-Academy-Research Cooperation Technology Development Business Program Grant (2017) – Academic Partner (pass 1<sup>st</sup> round screening)**  
The proposal is entitled “The Development of Educational Robots for Teaching Coding to Elementary Students”. Total amount is ₩100,000,000 for one year.
- **National Research Foundation of Korea (NRF) Individual Basic Science & Engineering Research Program Grant (2017) – Principal Investigator (PI)**  
The proposal was entitled “The Clinical Demonstration of Mixed Reality Serious Game as Therapy for Autistic Child”. Total awarded amount was ₩100,000,000 for two years.
- **Keimyung University Early Career Research Grant (2016) – Principal Investigator (PI)**  
The proposal was entitled “The Development of Motion Game to Improve Elderly People’s Physical and Mental Health”. Total awarded amount was ₩16,000,000 for two years.

- **Japan Society for the Promotion of Science (JSPS) KAKEN Grant (2013) – Principal Investigator (PI)**  
The proposal was entitled “Assisting Blind People to Interact with Public Displays”. Awarded with a Grant-in-Aid for Scientific Research supplement. Total awarded amount was ¥5,000,000 for three years.
- **Natural Sciences and Engineering Research Council of Canada (NSERC) DISCOVERY Grant (2012) – Principal Investigator (PI)**  
The proposal was entitled “Supporting Peripheral Participation on the Non-Planar Displays”. Awarded with an Early Career Researcher supplement. Total awarded amount was \$95,000 for five years.
- **ACM Student Research Competition (2007)**  
Awarded a student travel grant. My presentation, *the effects of handheld network service, LOOK, on the acquisition of common ground*, was selected as one of the top five semi-finals in the 38<sup>th</sup> ACM Technical Symposium on Computer Science Education (SIGCSE 2007). The final winners are invited to attend the annual ACM Turing Awards Banquet.
- **National Science Foundation (NSF) Student Travel Grants (2005)**  
Awarded a student travel grant to the IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2005).
- **Second Prize, International Internet Programming Olympiad Festival by Samsung Electronics Co. Ltd. (1996)**  
Won attendance tickets for the COMDEX Show in Las Vegas, Nevada, 1997.
- **Special Honor Scholarship, Korea University (1991)**  
Ranked among the top three percent of high scores on Korea University’s entrance exam. Four-year full-tuition scholarship was provided.

## PROFESSIONAL EXPERIENCE

- |   |                          |
|---|--------------------------|
| <p>Hanyang University ERICA<br/>Ansan, Korea<br/>Associate Professor in the Department of ICT</p> <ul style="list-style-type: none"> <li>• Researched and developed the VR/AR/MR games.</li> <li>• Supervised graduate/undergraduate students for the research.</li> </ul>                      | <p>03/2018 – Present</p> |
| <p>Keimyung University<br/>Daegu, Korea<br/>Assistant Professor in the Department of Game &amp; Mobile Engineering</p> <ul style="list-style-type: none"> <li>• Researched and developed the VR/AR/MR games.</li> <li>• Supervised graduate/undergraduate students for the research.</li> </ul> | <p>09/2016 – 02/2018</p> |

- Chuncheon National University of Education 09/2014 – 05/2016  
 Chuncheon, Korea  
 Research Professor for the Creative Korea (CK-I) Project
- Researched the coding education methods for elementary school class.
  - Managed the funding for Creative Korea (CK-I) Project.
- Kochi University of Technology 10/2012 – 08/2014  
 Kochi, Japan  
 Assistant Professor at the Center for Human Computer Interaction
- Researched assistive technology using gestural and haptic interfaces.
  - Supervised graduate and undergraduate students.
- Queen’s University 06/2010 – 09/2012  
 Kingston, Ontario, Canada  
 Adjunct Assistant Professor in the School of Computing
- Researched Organic User Interfaces.
  - Developed user-interfaces for e-textile display (<http://www.adafruit.com/blog/2011/05/10/tagurit/>).
  - Designed user interactions for spherical display.
  - Designed user interactions for cylindrical display.
  - Developed 3D Telepresence conference system
  - (<http://www.wired.com/gadgetlab/2012/05/3d-video-pod-delivers-360-degree-holograph-like-projections/>).
  - Co-supervised graduate and undergraduate students.
- Motorola Labs 05/2006 – 05/2010  
 Schaumburg, Illinois, USA  
 Senior Human Interaction Research Engineer
- Developed a topic detection engine to understand open user utterances and IPTV commercials.
  - Developed search engines for the TV program corpora.
  - Developed a mobile phone system automatically creating a dialogue interface for newly discovered nearby home appliances using various service protocols, such as UPnP, Bluetooth, and Jini. This prototyping research was integrated into the commercialized *Motorola Droid X* device as the Digital Living Network Alliance (DLNA) application.
- Virginia Polytechnic Institute and State University 08/2004 – 12/2006  
 Blacksburg, Virginia, USA  
 Graduate Research Assistant
- Developed classroom mobile applications for cooperative work and collaborative learning.
  - Developed educational applications on the Palm OS and Windows Mobile using Wi-Fi, Infrared and Bluetooth communications.
  - Assisted in class instruction, which was supported by the National Science Foundation (NSF) project, Tuple Space for Collaborative Learning.

- SRI International 07/2005 – 08/2005  
 Menlo Park, California, USA  
 Summer Participant in the Center for Technology in Learning
- Developed the application of distributed computing techniques to enable rapid prototyping of new collaborative learning activities.
  - Designed collaborative learning activities and implemented tools using Tuple Space technology.
- Cougar Software Inc. 05/2004 – 08/2004  
 McLean, Virginia, USA  
 Software Developer Intern
- Developed intelligent agent middleware.
  - Developed graphical workflow editor tools for a distributed agent system under Linux and Eclipse.
- Samsung Electronics 06/2003 – 08/2003  
 Seoul, Korea  
 Research Intern in the Universal Mobile Telecommunication System (UMTS) R&D Lab
- Participated in planning European 3G mobile networks in the telecommunication business project.
  - Developed a simulator for the UMTS.
  - Tested interfaces for multimedia services on cellular phones.
- Carnegie Mellon University 07/2002  
 Pittsburgh, Pennsylvania, USA  
 Summer Participant in the Center for Interdisciplinary Research on Constructive Learning Environments
- Completed the NSF-funded courses on building cognitive model tracing tutors.
- Virginia Polytechnic Institute and State University 05/2002 – 01/2003  
 Blacksburg, Virginia, USA  
 Graduate Research Assistant in the Center for Human-Computer Interaction
- Worked for NSF Research on Learning and Education (ROLE) Project: Knowledge Management as a Strategy for Teacher Development (TeacherBridge).
  - Developed back-end XML object database system for NSF ROLE Project.
  - Designed front-end visualization for social networks and knowledge discovery.
  - TeacherBridge has been deployed in Giles county public schools and Montgomery county public schools in Southwest Virginia and facilitated teacher-initiated development of organizational knowledge resources.
- WISEngine, Inc. 12/2000 – 07/2001  
 Santa Clara, California, USA  
 Software Engineer
- Developed commercial Internet Database Engine (IDB), especially network request module.
  - Developed intelligent agents to aggregate information across heterogeneous sources on the Web.

National Center for Supercomputing Applications (NCSA)  
Urbana, Illinois, USA

07/2000 – 12/2000

Graduate Research Assistant

- Developed and deployed NCSA's ISearch over different Unix systems.
- Participated in the development of Community Architectures for Network Information Systems (CANIS) for XML-delimited MEDLINE documents to populate metadata fields into ISearch.

Korean Augmentation Troops to United States Army (KATUSA)  
Seoul, Korea

07/1992 – 10/1994

Sergeant

- Provided English-Korean interpretation for American soldiers.
- Worked as a Training Official Sergeant in the US 8th Army 142nd Military Police Company.

## PUBLICATIONS

Dim, N., **Kim, K.**, and Ren, X. "Designing Motion Marking Menus for People with Visual Impairments", *International Journal of Human-Computer Studies*, Vol. 109, pp. 79-88. January 2018. (SCI Journal) IF=2.863

Lee, S., Park, K., Lee, J., and **Kim, K.**, "User Study of VR Basic Controller and Data Glove as Hand Gesture Inputs in VR Games", *Proceedings of the 2017 IEEE International Symposium on Ubiquitous Virtual Reality (ISUVR)*, pp. 1-3, Nara, Japan, June 2017.

Park, H., Jeong, S., Kim, T., Youn, D., and **Kim, K.**, "Visual Representation of Gesture Interaction Feedback in Virtual Reality Games", *Proceedings of the 2017 IEEE International Symposium on Ubiquitous Virtual Reality (ISUVR)*, pp. 20-23, Nara, Japan, June 2017.

**Kim, K.**, "Can We Support Peripheral Participations by Sharing Screen-Capture in Real Time? – The Study of Idiosyncratic Network Service in Handheld Mediated Collaboration", *ICIC Express Letters: An International Journal of Research and Surveys*, 11(8), pp. 1331-1338. August 2017. (Scopus Journal)

**Kim, K.**, "Sharing Visual Co-Presence of the Task for Monitoring and Acquiring Conversation Meaning", *ICIC Express Letters: An International Journal of Research and Surveys*, 11(7), pp. 1229-1235. July 2017. (Scopus Journal)

Dim, N., **Kim, K.**, and Ren, X., "An Exploratory Study of Marking Menu Selection by Visually Impaired Participants", *Proceedings of the 3<sup>rd</sup> IEEE International Conference on Smart Computing (SMARTCOMP 2017)*, pp. 1-7, Hong Kong, China, May 2017. (Best Community Paper Award)

**Kim, K.**, Ren, X., and Gao, Y., "ShifTable: A Natural Remote Target-Selection Technique on Large Displays", *Interacting with Computers*, 28(2), pp. 181-193. March 2016. (SCI Journal) IF=2.032

**Kim, K.**, Ren, X., Choi, S., and Tan, H., "Assisting People with Visual Impairments in Aiming at a Target on a Large Wall-Mounted Display", *International Journal of Human-Computer Studies*, Vol. 86, pp. 109-120. February 2016. (SCI Journal) IF=2.863

Choi, H. and **Kim, K.**, "The Effects of Scratch Programming on Preservice Teachers: Assessment Utilizing Computational Thinking and Bloom's Taxonomy", *Journal of The Korean Association of Information Education*, 19(2), pp. 225-232. June 2015. (KCI Journal)

**Kim, K.**, and Ren, X., "Assisting Visually Impaired People to Acquire Targets on a Large Wall-Mounted Display", *Journal of Computer Science and Technology*, 29(5), pp. 825-836. September 2014. (SCIE Journal) IF=0.956

**Kim, K.**, Bolton, J., Girouard, A., Cooperstock, J., and Vertegaal, R., "TeleHuman: A 3D Cylindrical Display Portal for a Life-size Human Telepresence", *Proceedings of the 30<sup>th</sup> ACM Conference on Human Factors in Computer Systems (CHI 2012)*, pp. 2531-2540, Austin, Texas, May 2012.

Bolton, J., Wang, P., **Kim, K.**, and Vertegaal, R., "BodiPod: Interacting with 3D Human Anatomy via a 360° Cylindrical Display", *Proceedings of the 30<sup>th</sup> ACM Conference on Human Factors in Computer Systems (CHI 2012) extended abstracts*, pp. 1039-1042, Austin, Texas, May 2012.

Bolton, J., **Kim, K.**, and Vertegaal, R., "A Comparison of Competitive and Cooperative Task Performance Using Spherical and Large Flat Displays", *Proceedings of the 2012 ACM Conference on Computer-Supported Cooperative Work (CSCW 2012)*, pp. 529-538, Seattle, Washington, February 2012.

Cheng, S., **Kim, K.**, and Vertegaal, R., "TagURLit: A Proximity-based Game of Tag Using Lumalive e-Textile Displays", *Proceedings of the 29<sup>th</sup> ACM Conference on Human Factors in Computer Systems (CHI 2011) extended abstracts*, pp. 1147-1152, Vancouver, Canada, May 2011.

Bolton, J., **Kim, K.**, and Vertegaal, R., "Snow Globe: A Spherical Fish-Tank VR Display", *Proceedings of the 29<sup>th</sup> ACM Conference on Human Factors in Computer Systems (CHI 2011) extended abstracts*, pp. 1159-1164, Vancouver, Canada, May 2011.

Bolton, J., **Kim, K.**, and Vertegaal, R., "Privacy and Sharing Information on Spherical and Large Flat Displays", *Proceedings of the 2011 ACM Conference on Computer Supported Cooperative Work (CSCW 2011)*, pp. 573-574, Hangzhou, China, March 2011.

**Kim, K.**, Turner, S., and Perez-Quinones, M., "Requirements for Electronic Note Taking Systems: A Field Study of Note Taking in University Classrooms", *Education and Information Technologies – the Official Journal of IFIP Technical Committee on Education 14(3)*, pp. 255-283, Springer Press, September 2009. (SCOPUS Journal)

**Kim, K.**, "The Handheld-Mediated Collaboration with Peripheral Participants by Sharing Visual Context", VDM Verlag Publishing (ISBN: 3-6391617-2-6), June 2009.

**Kim, K.**, Tatar, D., and Harrison, S., "Common Ground Can be Efficiently Achieved by Capturing a Screenshot in Handheld-Based Learning Activity", *Proceedings of the 2008 International Conference for the Learning Sciences (ICLS 2008)*, Vol. 3, pp. 57-59, Utrecht, the Netherlands, June 2008.

Ali, M. F., Russell, D., **Kim, K.**, and Xie, Z., "Dynamic User Interface Creation based on Device Descriptions", *Proceedings of the 26<sup>th</sup> ACM Human Factors in Computing Systems conference (CHI 2008) extended abstracts*, pp. 3949-3952, Florence, Italy, April 2008.



**Kim, K.**, Tatar, D., and Harrison, S., "Sharing Visual Context to Facilitate Late Overhearer's Understanding of the Handheld-Based Learning Activity", *Proceedings of the 7<sup>th</sup> International Conference on Computer Supported Collaborative Learning (CSCL 2007)*, pp. 364-366, New Brunswick, New Jersey, July 2007.

**Kim, K.**, "The Effects of the Handheld Network Service, 'Look', on the Acquisition of Common Ground", *SIGCSE Bulletin 39(1) – Proceedings of the Thirty-Eighth SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2007)*, Covington, Kentucky, March 2007.

**Kim, K.**, Tatar, D., and Harrison, S., "Handheld-Mediated Communication to Support the Effective Sharing of Meaning in Joint Activity", *Proceedings of the IEEE International Conference on Wireless, Mobile, and Ubiquitous Technologies in Education (WMUTE 2006)*, pp. 82-89, Athens, Greece, November 2006.

**Kim, K.** and Tatar, D., "The Effects of Handheld Network Service, LOOK, on the Acquisition of Common Ground", *Proceedings of the Sixteenth Annual Meeting for The Society for Text & Discourse*, Minneapolis, Minnesota, July 2006.

Turner, S., **Kim, K.**, Perez-Quinones, M., and Edwards, S., "Note Taking and the Tablet PC", *Workshop on the Impact of Tablet PCs and Pen-Based Technology on Education (WIPTTE 2006)*, West Lafayette, Indiana, April 2006.

**Kim, K.** and Tatar, D., "Weak Guidance with 'Look' Functionality in Handheld-Based Classroom Activities", *Proceedings of the 6<sup>th</sup> International Conference on Computer Supported Collaborative Learning (CSCL 2005)*, pp. 296-300, Taipei, Taiwan, May 2005.

**Kim, K.**, "Challenges in HCI: Digital Divide", *Crossroads – The ACM Magazine for Students 12(2)*, pp. 3-7, ACM Press, December 2005.

**Kim, K.**, Kwak, J.D., and Jo, S.H., "MOCHA: Modular & Configurable Handset S/W Architecture", *Proceedings of the 2005 IEEE International Consumer Communications and Networking Conference (CCNC 2005)*, pp.559-561, Las Vegas, Nevada, January 2005.

**Kim, K.** and Tatar, D., "Designing Knowledge Management Systems: Reuse and Integration of Findings in Computer Supported Cooperative Work", *Proceedings of the 2004 IEEE International Conference on Information Reuse and Integration (IEEE IRI-2004)*, pp. 338-343, Las Vegas, Nevada, November 2004.

**Kim, K.**, Kim, S., and Weon, S., "An Empirical Study for Performance Evaluation of Web Personalization Assistant Systems", *The Journal of Society for e-Business Studies 9(3)* (ISSN: 1226-3931), pp. 155-167, August 2004. (KCI Journal)

**Kim, K.**, Carroll, J.M., and Rosson, M.B., "Using Scenarios for Contextual Design in Agent Oriented Information Systems", *Lecture Notes in Computer Science - Conceptual Modeling for Novel Application Domains*, Vol. 2814, pp. 241 – 243, Springer Press, October 2003.

**Kim, K.** and Rosson, M.B., "Predicting End-Users' Behaviors by Applying Microprocessor Branch Prediction Algorithms to Session Logs of a Networked Community", *Proceedings of the 7th World Multi-Conference on SYSTEMICS, CYBERNETICS AND INFORMATICS (SCI 2003)*, pp. 193– 198, Orlando, Florida, July 2003.

**Kim, K.**, Isenhour, P.L., Carroll, J.M., Rosson, M.B., and Dunlap, D.R., “TeacherBridge: Knowledge Management in Communities of Practice”, *Proceedings of the IFIP TC9 WG9.3 International Conference on Home Oriented Informatics and Telematics (HOIT 2003)*, Irvine, California, April 2003.

**Kim, K.**, Carroll, J.M., and Rosson, M.B., “An Empirical Study of Web Personalization Assistants: Supporting End-Users in Web Information Systems”, *Proceedings of the 2002 IEEE Symposia on Human Centric Computing Languages and Environments (HCC’ 02)*, pp. 60-62, Arlington, Virginia, September 2002.

## SERVICE

- Associate chair for Games and Play subcommittee at the ACM CHI Conference on Human Factors in Computing Systems (CHI 2019) in Glasgow, UK (2018)
- Program committee for HCI KOREA 2019 Conference in Jeju island, Korea (2018)
- Committee member for the Korean Association of Computer Education (KACE) (2016 –present)
- Program chair for International Symposium on Interaction Design and Human Factors (IDHF) 2016 in Kochi, Japan (2016)
- Program committee for International Symposium on Interactive Technology and Ageing Populations (IxAP) 2016 in Kochi, Japan (2016)
- General chair for International Symposium on Interaction Design and Human Factors (IDHF) 2014 in Kochi, Japan (2014)
- Editorial board for the International Journal of Computer & Software Engineering (2014 – Present)
- Canada NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grant referee (2013)
- International program committee for the ACM 11th Asia Pacific Conference on Computer Human Interaction (APCHI) in Bangalore, India (2013)
- Committee members for the International Workshop on Assistive Engineering and Information Technologies (AEIT) in Dalian, China (2013)
- Program committee for the ACM 6th International Conference on Tangible, Embedded and Embodied Interaction (TEI) in Kingston, Ontario, Canada (2012)
- Editorial board for the Journal of Information Processing Systems (JIPS), The Official International Journal of the Korean Information Processing Society (KIPS) (2009 –2014)
- Reviewer for Journals: IEEE Transactions on Neural Systems and Rehabilitation Engineering, IwC (Interacting with Computers – The Interdisciplinary Journal of Human-Computer Interaction), IPSJ JIP (Information Processing Society of Japan – Journal of Information Processing), IEEE ToH (Transactions on Haptics), ACM IMWUT Journal (Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies)
- Reviewer for Conferences: CHI (ACM Conference on Human Factors in Computing Systems), CSCW (ACM Conference on Computer Supported Cooperative Work), UIST (ACM Symposium on User Interface Software and Technology), UbiComp (ACM International Joint Conference on Pervasive and Ubiquitous Computing), DIS (ACM Designing Interactive Systems Conference), MUM (ACM International Conference on Mobile and Ubiquitous Multimedia), PervasiveHealth (ACM International Conference on Pervasive Computing Technologies for Healthcare), WMUTE (IEEE International Conference on Wireless, Mobile and Ubiquitous Technologies in Education), CSCL (International Conference on Computer Supported Collaborative Learning), ICLS (International Conference of the Learning Sciences), ST&D (Annual Meeting of the Society for Text and Discourse), EuroHaptics, IHCI (International Conference on Intelligent Human Computer Interaction), ACHI (International Conference on Advances in Computer-Human Interactions)

- Judge in the 58<sup>th</sup> Annual Chicago Public Schools Student Science Fair (2008)
- External evaluator for Motorola InSTEP (Inquiry-based Science & Technology Enrichment Program) Program, School of Education, DePaul University (2008)
- Virginia Tech Association of Women in Computing (AWC) Committee (2005, 2006, 2007)
- Mentor for Virginia Tech Undergraduate Research Symposium (VTURCS) (2005)
- Judge for Virginia FIRST Lego league (2006)
- Mentor for ACM Mid-Atlantic USA Programming Contest (2002)

#### INVITED TALKS

- “An Exploratory Study of Marking Menu Selection by Visually Impaired Participants”, presented at POSTECH, Pohang, Korea, May 2017.
- “HCI, 4D and Multimodal Interaction”, presented at the Catholic University of Pusan, Pusan, Korea, December 2016.
- “Assisting Blind People for Target Acquisition on Large Interactive Display”, presented at Fuji Xerox Palo Alto Laboratory (FXPAL), Palo Alto, California, March 2014.
- “AcquiGuide: Assisting Blind People to Interact with a Public Large Display”, presented at Institute of Software, Chinese Academy of Sciences, Beijing, May 2013.
- “AcquiGuide: Assisting Blind People to Interact with a Public Large Display”, presented at School of Automation and Electrical Engineering, University of Science & Technology Beijing (USTB), Beijing, May 2013.
- “Creating Collaborations on Various Display Types”, presented at the Department of Computer Science, Michigan Technological University, Houghton, Michigan, April 2012.
- “Seamless Connectivity”, presented at the UX Innovations Lab, Samsung Information Systems America, Inc. (SISA), San Jose, California, March 2012.
- “Collaboration using the Various Display Form Factors – Handheld Display, Cylindrical Display, Spherical Display, and e-Textile Display”, presented at College of Technology and Innovation, Arizona State University, Mesa, Arizona, October 2011.
- “Collaboration on the Various Display Form Factors – Small Screen, Spherical Display, Fabric Display, and Flexible Display”, presented at the Department of Computer and Communications Engineering, College of Information & Communications, Korea University, Seoul, Korea, January 2011.
- “Utilizing Visual Evidence to Facilitate Formative Assessment in the Ubiquitous Learning Activity”, poster presentation at the GRAND NCE Annual Conference 2010, Ottawa, Ontario, June 2010.
- “LOOK: Support for Peripheral Participation and the Acquisition of Meaning”, presented at School of Computing, Queen’s University, Kingston, Ontario, September 2010.
- “The Handheld-Mediated Collaboration with Peripheral Participants by Sharing Visual Context”, presented at National Research Council Canada-Institute for Information Technology, Fredericton, New Brunswick, July 2009.
- “Effective Sharing of Context for Handhelds in the Classroom”, presented at Xerox Palo Alto Research Center (PARC), Palo Alto, California, January 2009.
- “Effective Sharing of Context for a Handheld Activity in Class”, presented at the Department of Computer Education, College of Education, Korea University, Seoul, Korea, September 2008.
- “The Effects of the Handheld Network Service, ‘Look’, on the Acquisition of Common Ground”, presented at ACM Graduate Student Research Competition, SIGCSE 07, Covington, Kentucky, March 2007.
- “The Effects of the Handheld Network Service, ‘Look’, on the Acquisition of Common Ground”, presented at the Sixteenth Annual Meeting for the Society for Text & Discourse, Minneapolis, Minnesota, July 2006.

- “UnivRemoteMpd: Control Devices with Your Moto”, presented at Human Interaction Research Center, Motorola, Schaumburg, Illinois, August 2006.
- “Handheld-Mediated Communication to Support the Effective Sharing of Meaning in Joint Activity”, presented at KnowledgeWorks Open House, Virginia Tech, Blacksburg, Virginia, September 2006.
- “Designing Knowledge Management Systems: Reuse and Integration of Findings in Computer Supported Cooperative Work” presented at the Center for Human-Computer Interaction (CHCI) Seminar Series, Virginia Tech, October 2004.
- “An Empirical Study of Web Personalization Assistants: Supporting End-Users in Web Information Systems” presented at the Computer Science Research Seminar Series, Virginia Tech, September 2002.

#### **PROFESSIONAL AFFILIATIONS**

- Association for Computing Machinery (ACM)
- Institute of Electrical and Electronics Engineers (IEEE)
- Upsilon Pi Epsilon (UPE) Society
- Society for Industrial and Applied Mathematics (SIAM)

#### **REFERENCES**

Available upon the request