

## CURRICULUM VITAE

**Si Jung “SJ” Kim, PhD**

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### Research Interests

- Design, evaluation, and applications of entertainment technology and design
- Wearable interactions

### Teaching Interests

- Physical computing
- Human Computer Interactions

### Education

- 2010 **Ph.D. Human-Computer Interaction & Human Factors, Department of Industrial and Systems Engineering, Virginia Tech**  
Dissertation: An Environmental User Interface (EUI) Framework to Convey Environmental Contexts In Interaction System Design  
Advisors: **Tonya L. Smith-Jackson, PhD** and **Woodrow W. Winchester III, PhD**  
Committee: **Joseph L. Gabbard, PhD** and **Thurmon E. Lockhart, PhD**
- Graduate Certificate in Human-Computer Interactions**
- 1999-2001 **Ph.D. Student (no degree), Computer Science, KAIST (Korea Advanced Institute of Science and Technology) and ICU (Information and Communications University), South Korea**
- 1999 **M.S. School of Information and Communication Engineering, Sungkyunkwan University, South Korea**  
Thesis: The Goal-Directed Motion Control of 3D Articulated Human Figure. Emphasis in articulated 3D animation and force sensor based interactive system design Advisor: **Tae-Yong Kuc, PhD**
- 1997 **B.S. Electronic and Computer Engineering, Kyonggi University, South Korea**
- 1996 **Exchange Student, Far Eastern National University, Russia**

### Professional Appointments

- 2014/8-present **Assistant Professor of Entertainment Engineering and Design, Howard R. Hughes College of Engineering, University of Nevada Las Vegas**
- 2011/8-2014/7 **Assistant Professor of Digital Media, University of Central Florida**
- 2010/8-2011/7 **Visiting Assistant Professor of Digital Media, University of Central Florida**
- 2005/9-2009/12 **Graduate Research and Teaching Assistant, Virginia Tech**
- 8/2007-12/2007 **Intern, Hewlett-Packard (HP) Research Labs, Palo Alto, CA**
- 3/2003-5/2005 **Chief Technology Officer, Si-Gong Media, Inc.**
- 4/1999-2/2003 **Founder, Avatar Soft, Inc. (merged into Si-Gong Media)**
- 6/1998-10/1998 **Graduate Researcher, KIST (Korea Institute of Science and Technology)**
- 2/1998-6/1998 **Graduate Researcher, SERI (System Engineering Research Institute)**
- 3/1997-12/1998 **Graduate Research Assistant, Sungkyunkwan University**
- 10/1994-2/1999 **Researcher, Samsung Software Membership (SSM) managed by Samsung Electronics, Inc.**
- 1/1991-2/1993 **Researcher, Samsung Electronics, Inc.**

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## Honors and Awards

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- 2015 **Three Undergraduate Students Won the CSUN Poster Conference ( one won the 3<sup>rd</sup> place and two won outstanding award) (Advisor)**
- 2014 **A Doctoral Student Won the 2nd Place in the M-1 Oral Presentation (Advisor), UCF School of Medicine**
- 2011 **Sony Scholarship Award**
- 2010 **LIFE (The Learning Institute for Elders) Scholarship**
- 2009 **Third place winner in the 5<sup>th</sup> wearable computer competition**, hosted by SDIA (System Design Innovation & Application Research Center) at KAIST (Korea Advanced Institute of Science and Technology)
- 2009 **KUSCO-KSEA (Korea U.S. Science Cooperation Center) travel award** for the UKC (US Korea Conference) 2009 Conference, Raleigh, NC
- 2009 **A Undergraduate Research Team Received the Innovation and Creativity Award in the Senior Symposium (Advisor), Virginia Tech**
- 2007 **Special Award in the 3<sup>rd</sup> Competition of Ubiquitous Wearable Fashion**, hosted by SDIA (System Design Innovation & Application Research Center) at KAIST
- 2006-2008 **Scholarship, College of Engineering at Virginia Tech**

2004	<b>Prime Minister's Commendation of the Korean Government for the contribution to the science and technology of Korea</b>
2003	<b>First Winner</b> in the Patent Service Proposal Competition hosted by the Korea Institute of Patent Information
2003	<b>Third Place Winner in the 4<sup>th</sup> Sungkyunkwan University Game Contest</b>
2000	<b>Bronze Medal in the 28<sup>th</sup> International Exhibition of Inventions (Geneva, Switzerland)</b>
1999	<b>Seoam Research Scholarship for Full Three Years for Ph.D. Study at KAIST (Korea Advanced Institute of Science and Technology)</b>
1998	<b>Young IT Start-up Fellow</b> , Yuri Scholarship Foundation (travel award to Silicon Valley, USA)
1998	<b>IEEE Best Paper Award (Seoul Council)</b>
1998	<b>President's Commendation of Sungkyunkwan University</b>
1998	<b>Second Place Winner in the 2<sup>nd</sup> Samsung Electronics Marketing Paper Contest</b>
1998	<b>Second Place Winner, IT Business Venture Contest hosted by Korean Government</b>
1998	<b>Third Winner in Multimedia S/W Contest (Kyongsung University)</b>
1998	<b>First Place Winner in IT Start-up Contest (Sungkyunkwan University)</b>
1997	<b>President's Commendation of Kyonggi University</b>
1995	<b>First Place Winner in Semi Conductor Design Contest (Seodu Logic, Inc.)</b>
1994	<b>Best Paper Award (Kyonggi University)</b>
1993-1995	<b>Kyonggi University Scholarship</b>

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## Peer-Reviewed Journal Articles

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- **Kim, S.**, Lee, K. & Park, Y. (in review). Balancing Fun and Learning through a User Interface: A Case Study of Using Wii Game, Journal of Educational Technology and Society
- Kim, S. J. (selected as a potential publication in 2016). Wearable Story: A Story Telling Jacket for Young Children to Improve Their Independent Physical and Learning Activities. IEEE Transactions on Learning Technologies on Wearable Technologies and the Internet of Things (IoT) in Education and Training. **Kim, S.**, Lee, K. & Park, Y. (in review). Balancing Fun and Learning through a User Interface: A Case Study of Using Wii Game, Journal of Educational Technology and Society

- Jun, K. & **Kim, S.** (2015). Feature Coverage Indexes for Dual Homography Estimation in Constructing Panorama Image, *Image Enlargement Using Multiple Sensors*
- Jun, K. & **Kim, S.** (2014). Modeling and Performance Analysis for Cell Access and Handoff Schemes in Two-Tier Cellular Networks, *Mathematical Problems in Engineering*, 2014
- Smith-Jackson, T., Carroll, K., **Kim, S.**, Suh, M., & Ryu, Y. S. (2010). Socially-smart computing to support older adults with severe visual impairments: Proof-of-concept. *International Journal of Gerontechnology*, 9(4), 472-483
- **Kim, S.**, & Kuc, T. (2010). A geospatial technique for detecting distance and reflection angle between real and virtual objects. *International Journal of Control, Automation, and Systems (IJCAS)*, 8(5), 1133-1140
- **Kim, S.**, Paring, R. & Kuc, T. (2009). Laser Shot System: A User Data Input Method Based on a Laser Pointer for Large Screen Interactive Content. *Journal of Computing Sciences in Colleges (JCSC)*, 25(2), 152-158
- Wang, Y., Otitoju, K., Lu, T., **Kim, S.**, & Bowman, D. (2007). The Effect of Gaps between Displays on Spatial Perception and Cognition Tasks in Virtual Environments. *International Journal of Virtual Reality*, 6(2), 33-41

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## Peer-Reviewed Conference Articles

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- Angelopoulou, A., Mykoniatis, K., Carlson, K., & **Kim, S.** (2014). UCF Smart Mailbox: Reinforcing Communications in the Neighborhoods, *HCI 2014*, Crete, Greece
- Lee, M., Kim K., Rho, H., & **Kim, S.** (2014). Empa Talk: A Physiological Data Incorporated Human-Computer Interactions, *CHI 2014 WIP*, Toronto, Canada
- Park, T., **Kim, S.**, & Lee, G. (accepted). A Study of Emoticon Use in Instant Messaging from Smartphone, *HCI 2014*, Crete, Greece
- Kim, J., Jang G., Lee, A., Choi, Y. & **Kim, S.** (2013). Initial Experiment of Data Acquisition System for Tele-Handshaking, *The 10th International Conference on Ubiquitous Robots and Ambient Intelligence (URAI 2013)* (pp.125), Jeju, Korea
- Ehleringer, E. & **Kim, S.** (2013). The Wearable Lullaby: Improving Sleep Quality of Caregivers of Dementia Patients, *CHI 2013 Work In Progress* (pp. 409-414), Paris, France
- **Kim, S.**, Cheon, J., Forsyth, S. & Jee, E. (2013). Research Trends in Art and Entertainment Robots (AnE Robots), *The 22nd IEEE International Symposium on Robot and Human Interactive Communication (Roman)* (pp. 360-361), Gyeongju, Korea
- Lee, S., Kim, W, Choi, H., Han, Y. & **Kim, S.** (2013). Physiological Signals as Reference Data to Evaluate Movie Engagement, *International Symposium on Affective Engineering 2013* (pp. 405-408), Kitakyushu, Japan

- Welch, S. & **Kim, S.** (2013). Determining the Effect of Menu Element Size on Usability of Mobile Applications, HCI International 2013 (pp.740-749), Las Vegas, NV USA
- **Kim, S.** (2012). User Study Trends in Augmented Reality and Virtual Reality Research: A qualitative study of the past three years of the ISMAR and IEEEVR conferences, International Symposium on Ubiquitous Virtual Reality (ISUVR) (pp. 1 -5), Daejeon, Korea
- Brown Q., Huber, J., Ishtiaque A. S., **Kim, S.**, Marentette, L., Mühlhäuser, M., Thayer, A., & Tse, E. (Alphabetical Order) (2012). Educational interfaces, software, and technology, CHI Extended Abstracts (pp. 2691-2694). Austin, TX USA
- Silva, P. & **Kim, S.** (2012). Supplementing Online Education Through Digital Theatre and Role-Play, UKC. Los Angeles, CA USA (poster)
- **Kim, S.**, Rogak, R. & He, D. (2011). Wearable Story: A Story Telling Jacket for Young Children to Improve Their Independent Physical and Learning Activities, Child Computer Interaction 2<sup>nd</sup> Workshop on UI Technologies and Their Impact on Educational Pedagogy in Conjunction with CHI 2011, Vancouver, Canada
- **Kim, S.**, & Underberg, N. (2011). Peru Digital: Approaching Interactive Digital Storytelling and Collaborative Interactive Web Design through Digital Ethnography, HCI, and Digital Media, HCI International 2011 (pp. 20-28), Orlando, FL USA
- Park, Y., **Kim, S.**, Lee, K. & Winchester, W. (2010). Kill Two Birds with One Stone in an Embodied Interaction Game: An Engagement Model for Both Fun and Learning, Association for Educational Communications and Technology (AECT), Anaheim, CA USA
- Suh, M., Carroll, K., Smith-Jackson, T. & **Kim, S.** (2010). Analysis of Clothing Activities for People with Visual Impairments, International Textile and Apparel Association (ITAA) Conference, Montreal, Canada
- Ryu, Y., Smith-Jackson, T., Carroll, K., **Kim, S.** & Suh, M. (2010). Embodied Cognition and Inclusive Design: Using Gestures to Elicit User Requirements for Interactive Systems, Third International Conference on Applied Human Factors and Ergonomics (pp. 875-), Miami, FL USA
- **Kim, S.**, Smith-Jackson, T., Carroll, K., Suh, M. & Mi, N. (2009). Implications of Participatory Design for a Wearable Near and Far Environment Awareness System (NaFEAS) for Users with Severe Visual Impairments, Human Computer Interaction International 2009 (pp. 86-95). San Diego, CA USA
- **Kim, S.**, Thangjitham, J. & Winchester, W. (2009). Assessing The Efficacy of a Mixed-Modal Auditory Display System For Enhancing Auditory Sensation, Proceedings of the 47th Annual Southeast Regional Conference, Clemson, SC
- **Kim, S.** (2009). Integration of Environmental Contexts and Human Factors for

Coordinating Garments: An Environmental User Interface Paradigm to Enrich User Interactions, Proceedings of the 47th Annual Southeast Regional Conference, Clemson, SC

- **Kim, S.**, Winchester, W., Choi, Y. & Lee, L. (2007). An Embodied User Interface for Increasing Physical Activities in Game, 2007 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR), Minneapolis, MN
- **Kim, S.**, Hung, Y. & Winchester, W. (2007). EUI (Environmental User Interface): The Initiative of Environment Coupled User Interface, Human Computer Interaction International (HCII) (pp. 580-584). Beijing, P.R. China
- Gabbard, J., Swan, J., Hix, D., **Kim, S.**, & Fitch, G. (2007). Active Text Drawing Styles for Outdoor Augmented Reality: A User-Based Study and Design Implications, IEEE Virtual Reality (International) (pp. 35-42). Charlotte, NC
- Wang, Y., Otitoju, K., Lu, T., **Kim, S.**, & Bowman, D. (2006). Evaluating the Effect of Real World Distraction on User Performance in Virtual Environments, ACM VRST (Virtual Reality Software and Technology) (International) (pp.19-26). Limassol, Cyprus
- **Kim, S.**, Gracanin, D., Winchester, W., & Kuc, T. (2006). The AR-CAVE: Distributed Collaborative Augmented Reality and Immersive Virtual Reality System, ICARA (The 3<sup>rd</sup> International Conference on Autonomous Robots and Agents) (pp. 351-354). Palmerston North, New Zealand
- **Kim, S.**, Choi, Y. & Lee, J. (2006). A Large Screen based Outdoor Game Development for Family, Human Computer Interaction Korea (pp.1333-1335)
- **Kim, S.**, Jang, M., Kim, H., & Kuc, T. (2004). A Development of Interactive Game: "Ting Ting" using Real and Virtual Objects, IEEE International Conference on SMC (International Conference on Systems, Man, and Cybernetics) (pp.1191-1197). The Hague, The Netherlands
- **Kim, S.**, V. Surov, Jang, M., & Kim, H. (2004). New User Interface Module Development Using Laser Pointer, Human Computer Interaction Korea (pp.294-297)
- **Kim, S.**, Lee, B., Surov, V., Jang, M., & Kim, H. (2003). Interactive On/Off-line VR Game Development Using General Beam Project with Vision System, Human Computer Interaction Korea (pp.331-334)
- Jang, M., Kuc, T., & **Kim, S.** (2001). 3D Avatar's Movement Creation and Control Technique, ICCAS (International Conference on Control, Automation, and Systems)
- **Kim, S.**, Jang, M., & Kuc, T. (2000). Motion Control for a 3D Avatar Using Motion Editor, Human Computer Interaction Korea
- **Kim, S.**, & Kuc, T. (1999). Cooperative Tele-operation in Virtual Environments, The 8<sup>th</sup> International Conference on Human-Computer Interaction (pp.598-603). Munich, Germany
- **Kim, S.** (1998). Goal-directed Motion Control of a 3D Human Character, Proceeding of

IEEE Student Paper (IEEE SEOUL Council) (pp. 47-51)

- **Kim, S.,** & Kuc, T. (1998). Goal Directed Motion Control of 3D Human Characters, IEEE International Conference on SMC (International Conference on Systems, Man, and Cybernetics) (pp.4334-4339). San Diego, CA
- **Kim, S.,** & Kuc, T. (1998). Cooperative Tele-operation in Virtual Environment, Human Computer Interaction Korea (pp. 47-51)
- **Kim, S.,** (1998). Application of a Laptop as a Haptic Interface, Samsung Electronics Marketing Paper Contest
- **Kim, S.,** & Kuc, T. (1998). Implementation of a Motion Control Editor for Personified Motion Control, KACC (Korea Automatic Control Conference) (pp.1687-1690)
- Jun, J., im, K., **Kim, S.,** & Kuc, T. (1998). Dynamic Control of Virtual Bicycling Motion, KACC (Korea Automatic Control Conference) (pp.1775~1778)
- **Kim, S.,** & Kuc, T. (1998). Motion Control of 3D Human Character Using Motion Database, Korea Multimedia Conference (pp.262~267)
- **Kim, S.,** & Kuc, T. (1998). Kinematics Animation of Human Walking, Human Computer Interaction Korea (pp.51~257)

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## Research Grant

(under review)	<b>Kim, S. (PI)</b> , "A Wearable Storytelling Education to Enhance Children's Independent Learning and Increase Physical Activities", <u>NSF CAREER</u> , Amount: \$1,007,280.
(under review)	<b>Kim, S. (PI)</b> , "The STEM Factory - A collaborative STEM learning conveyor belt with the learning of unmanned aerial vehicles (UAVs) building process", <u>Nevada System of Higher Education Nevada NASA EPSCoR Research Infrastructure Building Proposals</u> , Co-PI: Jame, D. Amount: \$99,995.
2015-2016	<b>Kim, S. (PI)</b> , "The Flying Orchestra: A Flying Aerial Robot Live Entertainment System", <u>The Knowledge Fund UAS</u> , Co-PI: Stubberud, P. Amount: \$92,000.
2014 - 2015	<b>Kim, S. (PI)</b> , "A Design and Evaluation of 3D Measurement System", <u>Easy Bio Systems</u> , Amount: \$92,000
2014 - 2015	<b>Kim, S. (co-PI)</b> , "NUE: Collaborative Networked Virtual Experiences for Nanotechnology Education", <u>The National Science Foundation (NSF)</u> , PI: Thomas. J., co-PIs: Zhai. L., Cho. H., Amount: \$200,000 (25% share)
2014	<b>Kim, S. (PI)</b> , "STEAM with Robots – Exploring STEM Components Embedded in Robot Building Kits", <u>ROBOTIS Inc.</u> , Amount: \$10,000
2014	<b>Kim, S. (PI)</b> , "Exploration of Hand Gesture Based Digital Social Behaviors", <u>Hanyang University</u> , Amount: \$30,000

- 2012 - 2014 **Kim, S. (PI)**, "Ajou-UCF International Colloquium Talk and Course Development", Ajou University. Amount: 38,140,000KWON (around \$34,673, \$1 = 1100KWON)
- 2013 **Kim, S. (PI)**, "A 3D Flow Simulation of Engineering Equipment", Siemens Energy, Inc. Amount: \$30,000
- 2013 **Kim, S. (PI)**, "STEAM with Robots", ROBOTIS Inc.. Amount: worth around \$2,000. The company provided OLLO and BIOLOID for developing STEAM (Science, Technology, Engineering, Arts and Math) content with Robots. <http://www.robotis.com/xe/>
- 2012 **Kim, S. (PI)**, "A Design and Development of Mobile Self-test Agent", Sage Wellness. Amount: \$2,000
- 2012 **Kim, S. (PI)**, "Redesigning a user interface of UCF touch panel system ", UCF Office of Instructional Resources (OIR). Amount: worth around \$12,000 (the fund was to support two UCF students and paid by OIR directly. [http://athena.cah.ucf.edu/hci/public\\_html/wordpress/?p=1340](http://athena.cah.ucf.edu/hci/public_html/wordpress/?p=1340)
- 2012 **Kim, S. (PI)**, "A Survey on How People Perceive Cultural Factors in Different Movies", Dankook University, co-PI: P. Peters, Amount: \$61,800
- 2012 **Kim, S. (PI)**, "A Usability Study on How Different Movies Affect User's Emotional Status", Korea Research Institute of Standards and Science (KRISS), co-PI: P. Peters, Amount: \$29,000
- 2011 **Kim, S. (PI)**, "A Haptic Surgery Simulator Prototype", Integrated Virtual Solutions (IVS) ; Amount: \$109,900
- 2011 **Kim, S. (co-PI)**, "NERC: National Engineering Research Centers – Nano Science", The National Science Foundation (NSF), PI: S. Sudipta, Amount: \$1,500,000, Kim. S. shares \$51,200 per year. not selected for award
- 2011 **Kim, S. (co-PI)**, "Mobile Folk: Cultural Learning with Mobile Devices", The National Endowment for the Humanities (NEH), PI: N. Underberg, Amount: \$76,500, not selected for award.
- 2010 **Kim, S. (PI)**, "Accessible supportive home environment for visually impaired people", University of Central Florida In-House Research Grant, Amount: \$7,400
- 2010 **Kim, S. (PI)**, "Identifying the design requirements for a touch-based interactive digital media for older adults", Learning Institute for Elders (LIFE), Amount: \$600
- 2009 **Kim, S. (PI)**, "Wearable Interaction Research Vortal (Vertical Portal); <http://fvortal.cimerr.net/wearable>", CIMERR (Center for Industrial & Management Engineering Research Resources) at POSTECH (Pohang University of Science and Technology), Amount: \$2,000
- 2009 **Kim, S. (PI)**, "A Wearable Memory – Proof of Concept", KAIST SDIA (System Design Innovation & Application Research Center), Amount: \$2,000



- 2008 **Kim, S. (Graduate Research Assistant)**, "Near and Far Environment Awareness System (NaFEAS)", NSF, PI: T. Smith-Jackson, co-PIs: K. Carroll, F. Quek, Amount: \$97,000  
Initiated the idea and assisted with the proposal work.
- 2007 **Kim, S. (PI)**, "Ubiquitous Fashion Coordination System (Ubi-Fashion)", KAIST SDIA (System Design Innovation & Application Research Center), Amount: \$2,000
- 2007 **Kim, S. (Graduate Research Assistant)**, "Exploration of the Design of a Wearable Embodied Awareness System (WEmAS)", Virginia Tech Center for Innovation in Construction Safety and Health, PI: W. Winchester, Amount: \$5,000. This proposal went to the final round but not selected for award.
- 2006 **Kim, S. (Co-PI)**, "User-Centered Intelligent Human and Environment Interface for Automobile", Next Generation Vehicle of Hyundai Motors, PI: T. Kuc at Sungkyunkwan University. Amount: \$300,000. Not selected for award.
- 2002 **Kim, S. (PI)**, "A Development of Digital Image Stitching Technique", The Ministry of Information and Communications of Korea, Amount: around \$300,000
- 2002 **Kim, S. (PI)**, "A Data Minding Technique for Managing Business Cards Using Two-dimensional Barcode System", The Small and Medium Business Administration of Korea, Amount: around \$50,000
- 2001 **Kim, S. (PI)**, "A Development of a 3D Cyber Seoul World Cup Stadium", The 2002 Seoul-Japan World-cup Association, Amount: \$50,000
- 2001 **Kim, S. (PI)**, "A Concrete Simulation Software Development", The Ministry of Science and Technology of Korea, Amount: around \$50,000
- 1999 **Kim, S. (PI)**, "Design and Development of 3D Avatars", The Korea Development Capital, Amount: around \$100,000
- 1999 **Kim, S. (PI)**, "Building a 3D Virtual City", The Kyonggi Economy Fund Organization, Amount: around \$60,000
- 1998 **Kim, S. (co-PI)**, "A Tele-driving Simulator", The Ministry of Information and Communications of Korea by M&D Info. Inc., PI: J. Kim, Amount: \$50,000
- 1997 **Kim, S. (Graduate Research Assistant)**, "A 3D Character Library Development", The Ministry of Information and Communications of Korea, PI: T. Kuc, Amount: around 100,000. Assisted the proposal work.

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### Grant for Organizing Doctoral Consortium

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- 2015 **Kim, S. (co-PI)**, "CHI 2015", Co-PIs: S. Fussell (Cornell) and J. Teevan (Microsoft Research)
- 2014 **Kim, S. (co-PI)**, "ISMAR 2014 Doctoral Consortium", Co-PI: W. Chinthammit at the HIT Lab Australia

- 2013 **Kim, S. (co-PI)**, "ISMAR 2013 Doctoral Consortium ", NSF. Co-PI: W. Chinthammit at the HIT Lab Australia, Amount: \$4,933 (the fund was to support two US doctoral students who attended ISMAR 2013 Doctoral Consortium)
- 2013 **Kim, S. (co-PI)**, "IEEE VR 2013 Doctoral Consortium ", NSF. PI: B. Lok, co-PI: G. Welch, Amount: \$10,110 (the fund was to support eight doctoral students who attended IEEE VR 2013 Doctoral Consortium)
- 2012 **Kim, S. (co-PI)**, "ISMAR 2012 Doctoral Consortium ", NSF. PI: B. MacIntyre, co-PI: B. Thomas, G. Welch: Amount: \$7,065 (the fund was to support 8 doctoral students who attend ISMAR 2012 Doctoral Consortium)

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## Teaching Grant/Gift

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- 2011 - 2014 **Kim, S. (PI)**, "UI/HCI Workshop for Visiting Scholars from SBS", SBS (Seoul Broadcasting Systems), Amount: total \$25,000 (each visiting scholar brings \$5,000 for taking the workshop)
- 2012 Spring **Kim, S. (PI)**, "2<sup>nd</sup> Screen Project", Motorola Mobility Inc. at Chicago, Amount: worth around \$5,000. Motorola Mobility provided three tablet pcs and five Android based smart phones for DIG3811 User Centered Design course projects
- 2011 Fall **Kim, S. (PI)**, "Motion User Interface Research", Samsung Electronics, Amount: worth around \$1,000. Samsung provided a total of 50 vibrational motors and its driver for DIG6918 Directed Research course
- 2010 Fall **Kim, S. (PI)**, "The Challenge of Interactive Digital Media in the Classroom", UCF FCTL, Amount: \$500.

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## Workshop Organization

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- 2014/1 **STEAM Workshop with ROBOTIS in Conjunction with Otronicon 2014, January 18, 2014 Orlando, FL**  
Co-Organizers (names are in alphabetical order): Bersani, G., **Kim, S.** Naimo, J. & Sung, S.  
<http://hci.cah.ucf.edu/roboticsworkshop/>  
[http://athena.cah.ucf.edu/hci/public\\_html/wordpress/?p=1345](http://athena.cah.ucf.edu/hci/public_html/wordpress/?p=1345)
- 2012/10 **Educational Interfaces, Software, and Technology (EIST) 2013 in Conjunction with CHI 2013, April 27- May 2 Paris, France (not accepted)**  
Co-Organizers (names are in alphabetical order): Brown Q., Huber, J., Ishiaque A. S., **Kim, S.**, Marentette, L., Mühlhäuser, M., Thayer, A., & Tse, E.  
<https://sites.google.com/site/eist2013/>
- 2012/5 **Educational Interfaces, Software, and Technology (EIST) 2012 in Conjunction with CHI 2012, May 5-6 Austin, Texas**  
Co-Organizers (names are in alphabetical order): Brown Q., Huber, J.,

Ishtiaque A. S., **Kim, S.**, Marentette, L., Mühlhäuser, M., Thayer, A., & Tse, E.  
<https://sites.google.com/site/eist2012>

## Panel

- 2011/9 **"Social Structures and Computer-Mediated Communication: Where Do We Stand?", 2011 Human Factors and Ergonomics Society's 55th Annual Meeting, Las Vegas, NV USA**  
 Co-panelists (names are in alphabetical order): **Kim, S.**, University of Central Florida, Lee, W., MITRE, Montague, E., University of Wisconsin, Rogers, M., Drexel University, Winchester, W., Virginia Tech., & Wright, M., Duke University
- 2011/7 **"What Do We See in the Future of Augmented Reality?", ISUVR (International Symposium on Ubiquitous Virtual Reality) 2011, Jeju, Korea**  
 Co-panelists (names are in alphabetical order): Bimer, O., Johannes Kepler University, **Kim, S.**, University of Central Florida, Saito, H., Keio University, and Hill, A. Georgia Tech.
- 2010 **"What is Human Factors Engineering and Its Future, Industrial and Systems Engineering", Virginia Tech, 2010**

## Invited Talk

- 2014/10** "Storytelling Jacket", The 10<sup>th</sup> Digital Storytelling Conference - Digital Storytelling and Emerging Technologies, Ehwa University, S. Korea
- 2014/10** "Tele-social Glove", Ajou University, S. Korea
- 2014/9** "The Human Emotion", 2<sup>nd</sup> International Workshop on Emotional Materials and Components, S. Korea
- 2013/6** "Affective Media Design from the Cognitive Perspectives", 1st International Workshop on Emotional Materials and Components, S. Korea
- 2013/5** "Applying HCI and Human Factors Knowledge in Construction", Korea Institute of Construction Technology, S. Korea
- 2012/12** "Integrating HCI and Human Factors Knowledge into Interactive Media Design", Chonnam National University, Gwangjoo, S. Korea
- 2012/8** "Human Factors in HCI", 2012 Summer School of the HCI Korea, Yeonsei University, Seoul, S. Korea
- 2011/11** "Mechatronics Design: An Interdisciplinary Project", Guest Speaker, DIG6605 - Physical Computing, University of Central Florida
- 2011/7** "HCI, Human Factors, and Environmental User Interface Framework Research for Interactive Media Design", KIST (Korea Institute of Science and Technology)
- 2011/6** "Incorporating HCI, Human Factors, and Environmental User Interface

- Framework Research into Interactive Media Design", UNIST (Ulsan National Institute of Science and Technology)
- 2010/12** "The Challenge of Interactive Digital Media in the Classroom", UCF Winter Professional Development Conference 2010, University of Central Florida
- 2010/10** "Introduction to Human Centered Design", Guest Speaker, EMA 3124 - Design and Selection of Materials, University of Central Florida
- 2010/10** "HCI, Human Factors & Assistive Technology", Guest Speaker, DIG3811- User-Centered Design, University of Central Florida
- 2009** "Integrating Human Computer Interactions and Human Factors Research into MIS and Business", Sol Bridge International School of Business, Daejeon, South Korea
- 2009** "Near and Far Environment Awareness System (NaFEAS)", 2009 Mid-Atlantic ACB (American Council of the Blind) Affiliates Convention, Baltimore, MD USA
- 2008** "Near and Far Environment Awareness System (NaFEAS)", 2008 Mid-Atlantic ACB (American Council of the Blind) Affiliates Convention, Arlington, VA USA
- 2008** "Interactivity Analysis of Dynamic User Interfaces: Case Study-Wii Tennis", 2008 Human Factors Research Symposium, Virginia Tech, Blacksburg, USA
- 2008** "3D Live Characters", 2008 Mid-Atlantic Business Plan Competition (Semi-Finalist), George Mason University, Washington D.C., USA
- 2007** "An Environmental User Interface", 32<sup>nd</sup> Research Symposium, Virginia Tech, USA
- 2002** "Avatar Business Industry and Global Strategy", Symposium, Kwangwoon University, Seoul, South Korea
- 2002** "The Future of Avatar Industry", Seoul Health College, Sunnam, South Korea
- 2002** "Avatar Soft", Small Business Success Story, Kyonggi University, Suwon, South Korea
- 2001** "IT Business Venture", Invited Seminar, Sungkyunkwan University, Suwon, South Korea
- 2000** "3D Virtual World", E-Business Booming Strategy of the Kyonggi Province, Kyonggi Regional Consociation (Forum), Suwon, South Korea
- 1998** "3DAvatars", University Student Exhibition of Start-up Business, Seoul National University, Seoul, South Korea
- 1998** "3D Avatars", IT Business Venture Fair, Ministry of Information and Communications of Korea, Seoul, South Korea
- 1998** "3D Human Character Library Development", ETRI (Electronics and Telecommunications Research Institute) (Workshop), Kyungjoo, South Korea
- 1997** "3D Human Character Library Development", ETRI (Electronics and Telecommunications Research Institute) (Workshop), Kyungjoo, South Korea
- 1996** "A Home Automation System," Samsung Software Membership (SSM), Seoul,

South Korea

**1996** "Russian Electronic Dictionary", Engineering Expo, Myungji University, Suwon, Korea

## Patents

- (In preparation)** **Kim, S.**, Ubiquitous Fashion Coordination System.
- 2009** **Kim, S.**, Smith-Jackson, T., Carroll, K. and Quek, F., Near and Far Environment Awareness System (NaFEAS), submitted to the US Patent Office by way of Virginia Tech Intellectual Property
- 2009** **Kim, S.** and En-tech Co, Apparatus for Controlling Sound According to Personal Hearing Characteristics, submitted to the Korea Invention Promotion Association (KIPA)
- 2008** **Kim, S.** and Kim, S., Sign Language Speaker; Music for the Deaf, submitted to the US Patent Office by way of Texas A&M University at Commerce
- 2006** **Kim, S.** and Kuc, T., Accessory for Mobile-Phones, Korea 10-2006-0027563
- 2006** **Kim, S.** and Ji, W., Information Service Method and System for Museum, Korea 10-0674445-0000
- 2006** **Kim, S.** and Ji, W., Sound-Electricity Convert and Storage Apparatus, Korea 10-0583922
- 2006** **Kim, S.** and Ji, W., Audition Method and Audition System Using a Mobile, Korea 10-0583923
- 2005** **Kim, S.**, Ring Sound Control System for Telephone (1020030087869, patent pending)
- 2005** **Kim, S.**, Input/ Output System for User-Display Interface System (1020030087868, patent pending)
- 2004** **Kim, S.** and Ji, W., Information Service Method and System for Museum
- 2004** **Kim, S.**, Light Controlling Apparatus for Speakers, Korea 10-0434692
- 2003** **Kim, S.**, Mouse with Scanning Function and Control Method, Korea 10-0403274
- 2002** **Kim, S.**, Rotation Table and Controlling Apparatus for 3D Photographing, Korea 10-0344057
- 2002** **Kim, S.** and Kuc, T., Apparatus for Controlling a Variable Lane, Korea 1010-0329488
- 2000** **Kim, S.**, A Turntable of Photographing, Korea 20-0253049
- 2000** **Kim, S.**, Vending Machines with Function of Lottery and Electronic Advertisement, Korea 20-0181287

**2000**      **Kim, S.** and Kuc, T., Apparatus for Automatic Mail Posting System, Korea  
10-0276625

## Courses Taught

- Fall 2015**      **Product Design II (EED420), University of Nevada Las Vegas**  
Core undergraduate course for EED majors.  
**History of Entertainment and Technology (EED250), University of Nevada Las Vegas**
- Spring 2015**      **Product Design I (EED310), University of Nevada Las Vegas**  
Core undergraduate course for EED majors. This class covers topics that are relevant to the design of usable interactive products for human use, especially for entertainment purposes.
- Fall 2014**      **History of Entertainment and Technology (EED250), University of Nevada Las Vegas**  
Core course for EED majors. The course covers an overview of the evolution of technology in the entertainment industry beginning with the 19th century through modern times.
- Spring 2014**      **User-Centered Design (DIG3811), University of Central Florida**  
**Fall 2013**      Core undergraduate course for Digital Media majors. The course covers  
**Fall 2012**      fundamental principles of interactive design that are relevant to the  
**Spring 2012**      design of usable computer interfaces and systems.
- Spring 2014**      **Physical Computing (DIG6605), University of Central Florida**  
**Spring 2013**      Elective graduate course that introduces methods of connecting physical  
**Spring 2012**      objects to microprocessor controllers in order to build original interactive  
components for research or artistic purposes
- Spring 2014**      **Direct Research: Human-Media Introduction (DIG6918), University of**  
**Fall 2013**      **Central Florida**  
**Spring 2013**      Core graduate course for MFA (elective for MA) that covers the elements  
**Fall 2012**      of design, development, and evaluation of interactive systems  
**Spring 2012**  
**Fall 2011**  
**Fall 2010**
- Fall 2013**      **Information Architecture (DIG5137), University of Central Florida**  
**Fall 2011**      Core graduate course that explores the process of formal design for  
interactive online processes, examining theories and strategies such as  
navigation, labeling, visualization, metadata, usability, and functional  
design.
- Fall 2013**      **Science and Technology of Digital Media (DIG6677), University of Central Florida**  
Core graduate course that focuses on the history and theory of  
computation and HCI technologies and examines them from several  
different perspectives (computer science, communications, art, cognitive

science, cultural and literary studies, etc.)

- Spring 2014**  
**Spring 2013**      **Information Management (DIG3563), University of Central Florida**  
Core undergraduate course for Digital Media majors. It covers how to build and use media systems to store and retrieve information, especially using content management systems.
- Fall 2012**      **Game Design Workshop (DIG4725c), University of Central Florida**  
Core undergraduate course for Digital Media game design track. The course provides students with an opportunity to learn how to design and implement games using professional tools and iterative design techniques.
- Fall 2011**      **Web Design Workshop Lab (DIG4104c), University of Central Florida**  
A lab for undergraduate course that explore, imagine and invent future ways of accessing the Internet, inspired by and extending the Worldwide Web
- Spring 2011**      **Internet Interaction Lab (DIG3716c), University of Central Florida**  
Undergraduate course that deals with interactive interfaces using markup languages, style sheets and script language
- Spring 2010**      **Co-Leader of PEST (Peer-Enabled Scholarly Team), Virginia Tech**  
Co-leading a journal and conference paper writing group consisting of undergraduate and graduate students  
Leader: Tonya Smith-Jackson, Ph.D.
- Fall 2008-**  
**Spring 2009**      **Project Management and System Design (ISE4006), Virginia Tech**  
Undergraduate Co-Advisor, Advised undergraduate students' capstone design projects  
Instructor: Brain Kleiner, Ph.D., Client: Tonya Smith-Jackson, Ph.D.
- Fall 2008**      **Introduction to Industrial Ergonomics (ISE3624)**  
Teaching Assistant, Virginia Tech. Responsible for grading homework and exams. Instructor: Linsey Barker, Ph.D.
- Spring 2008**      **Data Management (ISE3024)**  
Teaching Assistant, Virginia Tech. Responsible for grading homework and exams. Instructor: John P. Shewchuk, Ph.D.
- Spring 2007-**  
**Summer 2007**      **Undergraduate Co-Advisor, Virginia Tech**  
Advised undergraduate student's individual research about healthcare and multi-modal display
- Fall 2006**      **Applied Human Factors Engineering (ISE5154).**  
Teaching Assistant, Virginia Tech. Responsible for grading homework and exams. This is an off-line and on-line mixed course taking place in five locations at the same time. Assisted technical issues and commutations among students. Instructor: Miguel Perez, Ph.D.
- Spring 2005**      **C/C++ Programming**  
Instructor, Kyonggi University
- Spring 2005**      **Theory of Analog Circuits**

Instructor, Kyonggi University

**Spring 2005 Introduction to Database (SQL and MS Access)**

Instructor, Eulji University

**Fall 2003 Multimedia System and Application**

Instructor, Eulji University

**Spring 2002-  
Fall 2002 Introduction to Computer Science**

Instructor, Eulji University

**Fall 1997 Automatic Control System**

Teaching Assistant, Sungkyunkwan University, Responsible for grading homework, exams and labs. Instructor: Tae-Yong Kuc, Ph.D.

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## Service

**Department Service** **Graduate Committee, 2011 – 2014,  
Digital Media, University of Central Florida**

**Academic Advisee** **Department/School**

**Graduate Students:** Pedro Silva (MFA in Digital Media – Now Georgia Tech Doctoral Student), Reuben Rogak (MFA in Digital Media), Yao Zhou (MFA in Digital Media), David Moran (MFA in Digital Media), Shabnam Sabbagh (MFA in Digital Media), Reuben Rogak (MFA in Digital Media), Beth Hallman (MA in Digital Media - graduated), Daiwei He (Digital Media – graduated), Amy Ju (MA in Digital Media - graduated)

**Undergraduate Students:** Jessica Naimo (Digital Media), Guilherme Bersani (Digital Media), Darrick Reath (Digital Media – graduated), Alexander Delesky, (Digital Media), Scott Joslin (Digital Media), Adam Matheny (Digital Media), Juan Valera (Digital Media - graduated), Roberts Allen (Digital Media - graduated)

**Advisor to a student design team for 2013 AbilityOne® design challenge, in collaboration with a local organization, BAC (Brevard Achievement Center)**

UCF undergraduate students: Marieliz Cecilio, Mikhail A. Sedovich, Scott Joslin, and B.r. Rees

**University:**

**Graduate Students:** Don Merritt (PhD student in Text and Technology), Jae Kim (PhD student in the School of Medicine), Taewoo Park (Phd Student in ISE), Myung Lee (PhD Student in CS), Joseph Reni (PhD student in Modeling and Simulation), Seng K Lee (PhD student in Modeling and Simulation)

**Undergraduate Students:** Carina Viegas (Thesis Committee - Psychology), Jon Dunaj (Thesis Committee - Honors College), Geoff Huston (CS Undergraduate - graduated)

**Undergraduate Overseas Intern:**

Jeong Cheon(ECE Undergraduate, Korea Aerospace University), Jaden



Jang (ECE Undergraduate, Choong Nam National University), Hee Jeong Kim (CS Undergraduate, Han Yang University), Soomok Lee (EECS Undergraduate, Sung Kyun Kwan University), Younglak Jung (ME Undergraduate, Korea University), Wonhyo Lee (EECS Undergraduate, Sung Kyun Kwan University)

**Prior to joining University of Central Florida:**

Undergraduate co-advisor in the Grado Department of Industrial and Systems Engineering, Virginia Tech 2009-2010

**Conference Organizing**

**IEEE SeGAH scientific program committee**

**CHI 2015 Doctoral Consortium Co-Chair**, Apr. 17-23, 2015, Seoul, South Korea

**URAI 2014** (The International Conference on Ubiquitous Robots and Ambient Intelligence) **Publicity Chair**, Nov. 13-15, 2014, Kuala Lumpur, Malaysia

**IEEE ISMAR (International Symposium on Mixed and Augmented Reality) 2014 Doctoral Consortium Co-chair**, Sep. 10-12, Munich, Germany

**IEEE ROMAN 2014 (International Symposium on Robot and Human Interactive Communication) Program Committee**, Aug. 25-29, 2014, Edinburgh, Scotland, UK

**CHI2014 Workshop on Assistive Augmentation in Conjunction Program Committee**, Apr. 27, Toronto, Canada

**IEEE ISMAR (International Symposium on Mixed and Augmented Reality) 2013 Doctoral Consortium Co-chair**, Oct. 1-4, Adelaide, SA, Australia

**IEEE VR 2013 Doctoral Consortium Co-chair**, March 16-17, Orlando, FL

**IEEE ISMAR (International Symposium on Mixed and Augmented Reality) 2012 Doctoral Consortium Co-chair**, November 5-8, Atlanta, GA

**ISUVR (International Symposium on Ubiquitous Virtual Reality) 2013 Advisory Committee Chair**, July 10-13, Daejeon, South Korea.

**ISUVR 2012 Advisory Committee**, August 22-25, 2012, Daejeon, South Korea.

**HCI International 2011 Session Chair**, User Experience in the Physical and Human Environment, Orlando, FL

**Guest Editor**

Journal of Personal and Ubiquitous Computing (Springer) for a special issue on educational interfaces, software, and technology, 2013

**Journal Reviewer**

IEEE Systems, Man and Cybernetics (SMC) Part C: Applications and Reviews  
Proceedings of the IEEE

ETRI Journal

Interacting with Computers

Journal of Internet Technology

International Journal of Control, Automation and Systems

Journal of AMIS

**Conference**

**ACM CHI (Conference on Human Factors in Computing Systems) 2009 –**

<b>Reviewer</b>	present, <b>IEEE Virtual Reality</b> 2007 – present, <b>Human Computer Interaction International (HCII)</b> 2009 – present; <b>ACM Pervasive Health</b> 2011, <b>HFES (Human Factors Engineering Society)</b> 2008 – present; <b>International Conference on Intelligent User Interfaces</b> 2010, <b>DSI (Decision Science Institute)</b> 2008 –present; <b>Mobile HCI</b> 2011; <b>Usability Professional Association (UPA)</b> 2008 – present, <b>ISUVR (International Symposium on Ubiquitous Virtual Reality)</b> 2010- present; <b>Virginia Tech Research Symposium</b> 2009
<b>Local Community Service</b>	<b>Vice President</b> , KSEA (Korean-American Scientists and Engineers Association) Orlando Chapter, 2013-2014 <b>Vice President</b> , KSEA (Korean-American Scientists and Engineers Association) Orlando Chapter, 2012-2013 <b>Chair</b> , KSEA Math Competition – Orlando Chapter, April 2012 <b>Chair</b> , KSEA Math Competition – Orlando Chapter, April 2011
<b>Outreach</b>	<b>International University Relation:</b> Initiated a partnership with <b>Dongguk University (Under Review)</b> , 2015 Initiated and made a partnership with <b>Ajou University</b> , 2014 Initiated and made a partnership with <b>Korea Polytechnic University</b> , 2013 (UCF) Initiated and made a partnership with <b>Eulji University</b> , 2012 (UCF) Initiated and made a partnership with <b>Ajou University</b> , 2011 (UCF)  <b>International Scholar Hosting:</b> Yusang, Yim, Ajou University, 2014 – 2015 Jieun Kim, PhD, Ajou University, 2013 - 2014 Dong Ik Cho, SBS (Seoul Broadcasting Systems), 2013-2014 Won Koo Lee, SBS (Seoul Broadcasting Systems), 2013-2014 Sung Jin Ko, SBS (Seoul Broadcasting Systems), 2013-2014 Jae Hyuk Kim, SBS (Seoul Broadcasting Systems), 2012-2013 Woo Jin Chang, PhD, Ajou University, 2012-2013 Chi Hyang Eun, SBS (Seoul Broadcasting Systems - Radio), 2011-2012

## Membership

ACM (Association for Computing Machinery)  
IEEE (The Institute of Electrical and Electronics Engineers)  
KSEA (Korean-American Scientists and Engineers Association)