

James Walker

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Education

Ph.D, Computer Science, Michigan Technological University	May 2017
M.S., Computer Science, Michigan Technological University	May 2013
B.S., Information Technology, Franklin University	May 2009

Work Experience

Michigan Technological University, Houghton MI	2012-Present
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Lecturer

Graduate Teaching Assistant

Graduate Research Assistant

ThermoAnalytics Inc., Calumet MI	2016
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Software Developer

Gastrointestinal Institute, Normal IL	2006-2009
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Software Developer

Technical Support Technician

Data Entry Operator

Publications

James Walker, Scott Kuhl, Keith Vertanen. **Efficient Typing on a Visually Occluded Physical Keyboard.** In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. 2017.

Bochao Li, Anthony Nordman, James Walker, and Scott A Kuhl. **The effects of artificially reduced field of view and peripheral frame stimulation on distance judgments in HMDs.** *Proceedings of the ACM Symposium on Applied Perception*. 2016.

Scott Kuhl, Aleksandr Sergeyevev, James Walker, Shashank Barkur Lakshmikanth, Mark Highum, Nasser Alaraje, Ruimin Zhang, Mark Bradley Kinney. **Enabling Affordable Industrial Robotics Education through Simulation.** *ASEE Annual Conference & Exposition*. 2016.

James Walker, Michael Smith, Myounghoon Jeon. **Interactive Sonification Markup Language (ISML) for Efficient Motion-Sound Mappings.** *HCI International*. 2015.

Myounghoon Jeon, Steven Landry, Joseph Ryan, James Walker. **Technologies expand aesthetic dimensions: Visualization and sonification of embodied Penwald drawings.** *Proceedings of the 4th International Conference on Arts and Technology (ArtsIT2014)*. 2014.

Myounghoon Jeon, Michael Smith, James Walker, Scott A. Kuhl. **Constructing the Immersive Interactive Sonification Platform (iISoP).** *HCI International*. 2014.

Jun Ma, James Walker, Chaoli Wang, Scott A. Kuhl, Ching-Kuang Shene. **FlowTour: An Automatic Guide for Exploring Internal Flow Features.** *IEEE PacificVis*. 2014.

Ruimin Zhang, Anthony Nordman, James Walker, Scott A. Kuhl. **Minification affects verbal and action-based distance judgments differently in head-mounted displays.** *ACM Transactions on Applied Perception*. Presented at the 2012 ACM Symposium on Applied Perception.

Projects

Ph.D Dissertation: Virtual Reality

- Developed software system to assist users typing on physical keyboards while wearing head-mounted displays and performed user studies to evaluate the system
- Developed virtual reality window manager and performed a user experience survey
- Investigated techniques for improving users' perceptions in virtual environments

Master's Project: Compilers/Security

- Created software to convert Domain Type Enforcement Language (DTEL) to Java Security Manager source files
- Combined concepts of compilers and computer security in one application
- Full report available at <http://cs.mtu.edu/~jwwalker/files/walkerMSver3.pdf>