

# Nicholas J. Kelling, Ph.D.

## Curriculum Vitae

Assistant Professor of Psychology  
University of Houston-Clear Lake  
School of Human Sciences and Humanities  
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Houston, TX 77058  
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### EDUCATION

- 2006 – 2009 Georgia Institute of Technology  
Ph.D. in Engineering Psychology  
Thesis: *An Investigation of Human Sensitivity to Changes in Motion*  
Minor: Physical Limitations of the Human User
- 2005 – 2006 Georgia Institute of Technology  
M.S. in Engineering Psychology  
Thesis: *The Influence of Visual Perception on Vehicle Rates of Closure*
- 1997 – 2001 Georgia Institute of Technology  
B.S in Mechanical Engineering  
Minor: Biomedical Engineering

### RESEARCH PROJECTS CURRENTLY IN PROGRESS

- Human Sensitivity to Changes in Visual Objects Motion
- Working Memory in Relation to Motion Perception
- Technology Use in Educational and Entertainment Environments
- Use of Technology for Enhancing Visitor Experiences at Zoos
- Perception in Virtual and Augmented Reality Environments

### PROFESSIONAL HISTORY

- 2014 - present Assistant Professor of Psychology –University of Houston-Clear Lake
- Director of the Applied Cognitive Psychology Concentration
- 2012 - 2014 Assistant Professor of Psychology – University of South Florida
- Principal Investigator of the Perception and Action Lab
- 2011 - 2012 Assistant Professor of Psychology – University of South Florida – Polytechnic
- Developer of B.S. in Engineering Psychology
  - Developer of M.S. in Human Factors Integration
  - Co-developer of B.S./M.S. in Systems Engineering

## RESEARCH GRANTS AND AWARDED FUNDS

“eXperimental Design Assistant” (funded 8/11/2016-2018) - \$999,332  
Phase II SBIR contract in collaboration with Tietronix Software Inc. Key  
Personnel. Funding Agency: NIH/NIDA

Investigation of Dual Task Paradigms for ADHD Classification - \$5380.  
Co-Investigator UHCL FRSF Grant (Spring, 2015)

PolyVision Augmented Reality Mobile Application and University  
Community Program - \$10,000. Co-Primary Investigator. USFP  
Entrepreneurs Challenge Plus Grant (Spring, 2012)

Polytechnic Learning Center - \$10,000. Co-Primary Investigator.  
*Internal Grant* (Spring 2012).

*Investigation into the Capability and Limitations of Multi-Object Motion  
Prediction.* NSF Perception, Action, & Cognition (PD 09-7252).  
Primary Investigator. (Fall, 2010 – not funded)

Nvidia Corporation Academic Partnership. Phase I Equipment Donation  
Approximate Value - \$2000 (Fall, 2010)

Marshall University Summer Research Award - \$2000 (Summer, 2010).

Marshall University INCO Award for Faculty Development. Travel  
award for workshop attendance at Human Factors and Ergonomics  
Society Annual Meeting - \$1000 (Fall, 2009)

Georgia Tech School of Psychology Graduate Student Development  
Award. *Internal Grant* (Fall, 2006)

## PUBLICATIONS

Kelling, N.J., Gaalema, D.E., & Kelling, A.S. (2014). A Modified  
Operational Sequence Methodology for Zoo Exhibit Design and  
Renovation: Conceptualizing Animals, Staff, and Visitors as  
Interdependent Coworkers. *Zoo Biology*, 33, 336-348.

Kelling, N.J., Kelling, A.S., & Lennon, J.F. (2013). The Tweets that  
Killed a University: A Case Study Investigating the Use of  
Traditional and Social Media in the Closure of a State University.  
*Computers in Human Behavior*, 29, 2656-2664.

Kelling, A.S., Dampier, S.M.A., Kelling, N.J., Sandhaus, E.A., & Maple, T.L. (2012) Lion, Ungulate, and Visitor Reactions to Playbacks of Lion Roars at Zoo Atlanta. *Journal of Applied Animal Welfare Science*, 15, 313-328.

## REFEERED CONFERENCE PROCEEDINGS

Avera, A., Merta, M., Fournier, P., DeLeon, R., Kelling, N., & Sutherland, S. C. (2016). Reaching the Youth—Creating Entertaining and Educational HF/E Outreach Activities for Grades K-12. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 60, No. 1, pp. 425-429)*. Sage CA: Los Angeles, CA: SAGE Publications.

Merta, M., & Kelling, N. (2015). Effects of Level of Control on Simulator Sickness Using a Virtual Reality Head Mounted Device. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 59, No. 1, pp. 766-769)*. SAGE Publications.

Pham, T., & Kelling, N. (2015). Mechanical and Membrane Keyboard Typing Assessment Using Surface Electromyography (sEMG). In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 59, No. 1, pp. 912-915)*. SAGE Publications.

Thomas, E., DeLeon, R., Kelling, N., & Harper, C. (2015). Arrow Key Configurations on Laptop Keyboards Performance and User Preference of the Inverted-T and Modified-T Layout. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting (Vol. 59, No. 1, pp. 1071-1074)*. SAGE Publications.

Kelling, N., & Kelling, A. (2014). ZooAR: Zoo based Augmented Reality Signage. *Proceedings of the Human Factors and Ergonomics Society 58th Annual Meeting*. Chicago, IL: Human Factors and Ergonomics Society

Kelling, N.J., Gaalema, D.E., & Kelling, A.S. (2012). Elephant in the Break Room: The use of modified operational sequence diagrams for the determination of zoo exhibit inefficiencies. *Proceedings of the Human Factors and Ergonomics Society 56th Annual Meeting*. Boston, MA: Human Factors and Ergonomics Society.

Kelling, N. J., Ryan, C. D., Halter, J. T., & Corso, G. M. (2008). Drivers and Passengers: Are the Perceptions of Brake Time the Same. *Proceedings of the Human Factors and Ergonomics Society 52th Annual Meeting*. New York, NY: Human Factors and Ergonomics Society.

Kelling, N. J., & Corso, G. M. (2007). The Influence of Lead Vehicle Behavior and Vehicle Rates of Closure on a Driver's Braking Behavior. *Proceedings of the Human Factors and Ergonomics Society 51th Annual Meeting*. Baltimore, MA: Human Factors and Ergonomics Society.

Kelling, N. J., & Corso, G. M. (2007). Prediction of Brake Onset Times for Rear End Collisions. *Proceedings of the Fourth International Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Stevenson, Washington.*

Corso, G. M., & Kelling, N. J. (2007). Just Noticeable Differences for Vehicle Rates of Closure. *Proceedings of the Fourth International Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Stevenson, Washington.*

## PRESENTATIONS

Kelling, N., Amick, R. Z., Corso, G. M., Harper, C., Muddimer, A., & Peres, S. C. (2016, September). Fork in the Road Deciding Between Academia and Industry. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 60, No. 1, pp. 389-392). SAGE Publications.

Malin, D.H., Ward, C.P., Hetherington, S.A, Izygon, J.J., Nghiem, D.M., Kelling, N., and Buras, W.R. (October, 2015). *Interactive training software for designing, conducting and documenting rigorous preclinical experiments on drug dependence.* Presentation at Society for Neuroscience 2015 Annual Meeting.

Haist, B., Kelling, N.J., Harper, C.m & Kotin, S. (May, 2015). *Magic 5 Hardware Usability.* Poster presentation at the 2015 Houston HFES One Day Symposium.

Smith, T., Becerra, Z., Corso, G.M., & Kelling, N.J. (November, 2014). *Detecting Changes in the Direction of a Moving Object.* Poster presentation at the 2014 Annual Meeting of the Kentucky Academy of Science.

Becerra, Z., Smith, T., Corso, G.M., & Kelling, N.J. (November, 2014). *Detecting Changes in the Continuity of a Moving Object.* Poster presentation at the 2014 Annual Meeting of the Kentucky Academy of Science.

Kelling, N. J., Bedwell, W., Corso, G.M., Cuevas, H. M., Keebler, J. R., Peres, S. C., & Walker, B. N. (October, 2014). *Variance in Academia: It is not all RI's out there and even those are not what you think.* Chair of Discussion Panel at the Human Factors and Ergonomics Society 58th Annual Meeting. Chicago, Il: Human Factors and Ergonomics Society

Kelling, N. J., Bedwell, W., Corso, G.M., Cuevas, H. M., Keebler, J. R., Peres, S. C., & Walker, B. N. (October, 2013). *Life, the Universe, and Academia: An Interactive Discussion on Balance and Early Success for Potential Academics*. Chair of Discussion Panel presented at the 57<sup>th</sup> Annual Meeting of the Human Factors and Ergonomics Society.

Kelling, N. J., & Kelling, A. S. (September, 2010). *Google Wave as Classroom Collaboration Tool in a Commuting Environment*. Presented at the 54<sup>th</sup> Annual Meeting of the Human Factors and Ergonomics Society.

Kelling, N. J., & Corso, G. M. (August 2008). *The Time is Now! Vehicles must fully adapt to drivers, not just their radio stations*. Presented at the 116<sup>th</sup> American Psychological Society Annual Convention, Boston, MA.

Kelling, N. J. (March 2007). *The Influence of Lead Vehicle Behavior and Vehicle Rates of Closure on a Driver's Braking Behavior*. Presented at the Georgia Institute of Technology Annual Graduate Student Research Symposium, Atlanta, GA.

Halter, J. T., Kelling, N. J., & Corso, G. M. (April 2006). *Effects of Vehicle Size on the Perception of Rates of Closure*. Poster presented at the Georgia Psychological Association Annual Student Research Poster Session, Atlanta, GA.

Kelling, N. J., & Corso, G. M. (March 2006). *Analysis of Roles of Visual Perception in Driving*. Poster presented at the Georgia Institute of Technology Annual Graduate Student Research Symposium, Atlanta, GA.

## OTHER PRESENTATIONS

Houston User Experience Professionals Association - *Roars, Clicks, and Tweets: Unique interactions between entertainment and education* (Spring 2015)

Marshall University College of Information Technology and Engineering – *Engineering Psychology* (Spring 2010)

Marshall University Freshmen Convocation – Fall 2009

## PATENTS

Kelling, N. J. & Corso, G. M., (2006). *Algorithm for the Prediction of Brake Onset Times in Driving*. Provisional Status. Georgia Institute of Technology, Atlanta, GA

## AWARDS/HONORS

Georgia Tech Psychology Department Commendation on End of the Year Evaluation (Spring, 2007)

Georgia Institute of Technology Best Practices Challenge  
Best of the Best Award for Research, Finance, and Institute Operations  
(Spring, 2005) *Network Based Time Document Solution*

## PROFESSIONAL SERVICE

- Member of the Program Committee for the Automotive UI 2012, 2013, 2014, and 2015 Conferences
- Member of the Technical Program Committee for the Special Session on Intelligent Cooperative Driving and Autonomous Connected Vehicles at the 2014 International Conference on Collaboration Technologies and Systems
- Member of the Technical Program Committee for The Social Car – Socially Inspired Car to X Interaction workshop Automotive UI 2012
- Member of the Technical Program Committee for the Subliminal Perception in Cars Workshop at the Automotive UI 2011 Conference
- Member of Human Factors and Ergonomics Society *Defining Human Factors/Ergonomics* Committee
- Member of Human Factors and Ergonomics Society 2014 *Task Force of the HF Academic Job Market*
- Reviewer for Human Factors and Ergonomics Society Annual Meetings and CHI conferences
- Manuscript Reviewer for *Human Factors, Brain and Cognition*, and *Current Directions in Psychological Science*
- Session Chair for the Surface Transportation Technical Group at the 54<sup>th</sup> Annual Meeting of the Human Factors and Ergonomics Society

## PROFESSIONAL SOCIETIES AND COMMITTEES

- Member of the Houston Human Factors and Ergonomics Society
  - Executive Committee Member
  - Elections Director
- Member of the Human Factors and Ergonomics Society
  - Chair of Education Technical Group
  - Member of Education and Training Committee
  - Member of Perception and Performance Technical Group
  - Member of Environmental Technical Group

## UNIVERSITY SERVICE

- Psychology Instructional Assistant Director (2016-)
- Faculty Member of the UHCL HSH Grade Appeal Committee (2016-)
- Faculty Member of the UHCL HSH Scholarship Committee (2016-)
- Head of the HSH Psychology Website Redevelopment Project (2014-2015)
- Co-chair Applied Cognitive Psychology Search Committee (2014-2015)
- Senator - Marshall University Faculty Senate (2010-2011)
- First Freshman Task Force – USF-Polytechnic (2011-2012)
- Council on Technologies for Instruction and Research – USF-Polytechnic (2011-2012)