

Steven J. Johnson

University of Wisconsin–Madison

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Research Interests

Human-Computer Interaction
Computer-Mediated Communication
Robotic Telepresence

Head-Mounted Displays (HMDs)
Task Guidance Systems
Educational Technologies

Education

- 2013 – 2018 **Ph.D.: Computer Sciences, University of Wisconsin–Madison.**
(Projected) Studying Human-Computer Interaction
Advisor: Bilge Mutlu
NASA Space Technology Research Fellow
GPA: 4.00/4.00
- 2013 – May **Master of Science: Computer Sciences, University of Wisconsin–Madison.**
2015 GPA: 4.00/4.00
- 2009 – 2013 **Bachelor's: Quantitative Economics, Mathematics, Computer Science, Drake University.**
Graduated Summa Cum Laude - GPA 4.00/4.00

Publications

Refereed Conference Papers

C.1. Steven Johnson, Irene Rae, Bilge Mutlu, and Leila Takayama. “Can You See Me Now? How Field of View Affects Collaboration in Robotic Telepresence.” (To Appear) In *Proceedings of the 2015 SIGCHI Conference on Human Factors in Computing Systems (CHI '15)*, Seoul, South Korea, April 2015.

ACCEPTANCE RATE: 23%

C.2. Steven Johnson, Madeleine Gibson, and Bilge Mutlu. “Handheld or Handsfree? Remote Collaboration via Lightweight Head-Mounted Displays and Handheld Devices.” In *Proceedings of the 2015 ACM Conference on Computer-Supported Cooperative Work (CSCW '15)*, Vancouver, Canada, March 2015.

ACCEPTANCE RATE: 28%

Posters

P.1. Steven Johnson, Xiang Zhi Tan, Daniel Szafr, and Bilge Mutlu. “Using At-A-Glance Displays to Enhance Student Attention.” *McPherson Eye Research Institute (MERI) Symposium*, Madison, Wisconsin, Oct. 2014.

Fellowships

F.1. Steven Johnson. “Automated Task Monitoring, Feedback and Training for Critical Missions.” *NASA National Space Technology Research Fellowship (NSTRF)*, 2014–2018 (renewed annually).

Experience

Research

- 2014 – Present **Graduate Research Fellow, University of Wisconsin–Madison.**
Conducting research in Human-Computer Interaction under the guidance of Professor Bilge Mutlu.
Research supported by a NASA Space Technology Research Fellowship.
Focused on supporting interaction with lightweight head-mounted displays, specifically as a tool to assist in remote collaboration with experts and as a component of a physical task guidance system.

- 2012–2013 **NMR auto-assignment software development**, *Drake University*.
Conducted research on efficient algorithms for assigning the most likely ordering of amino acids to protein chains given an NMR dataset.
- 2012 **Sage Open-Source Mathematics Software**, *Drake University*.
Collaborated with a team to develop and implement a new version of the Sage Cell Server, a web-based interface allowing users to run mathematical computations in their browser.
Presented details of successful implementation at a conference in Seattle – it’s still in use today.

Teaching

- 2013 **Teaching Assistant**, *University of Wisconsin–Madison*.
Introductory computer science course taught in Java.
Taught four lab sections, with just shy of 100 students in total.
- 2013 **Online Calculus Tutor**, *Tutor.com*.
Taught mathematics including the level of Calculus II to students online.
Worked with an assigned mentor to analyze past tutoring sessions to improve teaching skills.

Outreach

- 2014 **Grandparents University**, *University of Wisconsin–Madison*.
Helped give a tour of the HCI lab and prepared telepresence robot demonstrations for a “Social Robotics” major for grandparents and their grandchildren.
- 2014 – 2015 **National Robotics Week**, *University of Wisconsin–Madison*.
Prepared telepresence robot demonstrations to engage the broader UW–Madison community and disseminate research to the public regarding how robotics technology impacts society.

Service

- 2015 **Reviewer**, *AAAI Spring Symposium Series: Turn-Taking and Coordination in Human-Machine Interaction*.

Honors and Awards

- 2014 NASA NSTRF Research Fellow
- 2014 Wisconsin–Madison Computer Science Department Summer Research Assistantship