

# Samantha Finkelstein

## Education

2011-present

Ph.D. in Human-Computer Interaction, Carnegie Mellon University  
**Advisor:** Dr. Justine Cassell

2008 - 2011

B. A. in *Psychology, Computer Science*, University of North Carolina at Charlotte  
*College of Computing and Informatics Honors, University Honors, Magna Cum Laude*  
**Advisor:** Dr. Tiffany Barnes

## Research Interests

areas

Human-agent interaction, collaborative learning, culture, rapport, discourse

## Publications

journal

1. Mauceri, C., Suma, E., Finkelstein, S., Souvenir, R. (2013). Evaluating Query Interfaces for Searching Videos of Human Actions. *ACM Transactions on Interactive Intelligent Systems*, to appear.
2. Suma, E. A., Lipps, Z., **Finkelstein, S.**, Krum, D. M., & Bolas, M. (2012). Impossible spaces: Maximizing natural walking in virtual environments with self-overlapping architecture. *Visualization and Computer Graphics, IEEE Transactions on*, 18(4), 555-564.
3. Goolkasian, P., **Finkelstein, S.**, & Stubblefield, A. (2011). Perceptual comparisons with laterally presented pictures and environmental sounds. *The American journal of psychology*, 124(4), 379-393.
4. **Finkelstein, S.**, Nickel, A., Lipps, Z., Barnes, T., Wartell, Z., & Suma, E. A. (2011). Astrojumper: Motivating exercise with an immersive virtual reality exergame. *Presence: Teleoperators and Virtual Environments*, 20(1), 78-92.
5. Suma, E. A., **Finkelstein, S. L.**, Reid, M., Babu, S. V., Ulinski, A. C., & Hodges, L. F. (2010). Evaluation of the cognitive effects of travel technique in complex real and virtual environments. *Visualization and Computer Graphics, IEEE Transactions on*, 16(4), 690-702

conference

6. **Finkelstein, S.**, Yarzebinski, E., Vaughn, C., Ogan, A., Cassell, J. (2013, July). The effects of culturally-congruent educational technologies on student achievement, In *Proceedings of Artificial Intelligence in Education*, to appear.
7. Wang, W. Y., **Finkelstein, S.**, Ogan, A., Black, A. W., & Cassell, J. (2012, July). Love ya, jerkface: using sparse log-linear models to build positive (and impolite) relationships with teens. In *Proceedings of the 13th Annual Meeting of the Special Interest Group on Discourse and Dialogue* (pp. 20-29). Association for Computational Linguistics.
8. Ogan, A., **Finkelstein, S.**, Mayfield, E., D'Adamo, C., Matsuda, N., & Cassell, J. (2012, May). Oh dear stacy!: social interaction, elaboration, and learning with teachable agents. In *Proceedings of the 2012 ACM annual conference on Human Factors in Computing Systems* (pp. 39-48). ACM.
9. Ogan, A., **Finkelstein, S.**, Walker, E., Carlson, R., & Cassell, J. (2012, January). Rudeness and rapport: Insults and learning gains in peer tutoring. In *Intelligent Tutoring Systems* (pp. 11-21). Springer Berlin Heidelberg.

10. Suma, E. A., Krum, D. M., **Finkelstein, S.**, & Bolas, M. (2011, March). Effects of redirection on spatial orientation in real and virtual environments. In *3D User Interfaces (3DUI), 2011 IEEE Symposium on* (pp. 35-38). IEEE.. Best Technote.
11. Suma, E. A., Clark, S., Krum, D., **Finkelstein, S.**, Bolas, M., & Wartel, Z. (2011, March). Leveraging change blindness for redirection in virtual environments. In *Virtual Reality Conference (VR), 2011 IEEE* (pp. 159-166). IEEE.
12. **Finkelstein, S. L.**, Powell, E., Hicks, A., Doran, K., Charugulla, S. R., & Barnes, T. (2010, June). SNAG: using social networking games to increase student retention in computer science. In *Proceedings of the fifteenth annual conference on Innovation and technology in computer science education* (pp. 142-146). ACM.
13. **Finkelstein, S.**, Nickel, A., Barnes, T., & Suma, E. A. (2010, April). Astrojumper: Motivating children with autism to exercise using a VR game. In *Proceedings of the 28th of the international conference extended abstracts on Human factors in computing systems* (pp. 4189-4194). ACM.
14. Powell, E. M., **Finkelstein, S.**, Hicks, A., Phifer, T., Charugulla, S., Thornton, C., & Dahlberg, T. (2010, April). SNAG: social networking games to facilitate interaction. In *Proceedings of the 28th of the international conference extended abstracts on Human factors in computing systems* (pp. 4249-4254). ACM.
15. Suma, E. A., Finkelstein, S. L., Clark, S., Goolkasian, P., & Hodges, L. F. (2010, March). Effects of travel technique and gender on a divided attention task in a virtual environment. In *3D User Interfaces (3DUI), 2010 IEEE Symposium on* (pp. 27-34). IEEE.
16. Doran, K., Boyce, A., & Finkelstein, S. (2010, June). Reaching out with game design. In *Proceedings of the Fifth International Conference on the Foundations of Digital Games* (pp. 250-251). ACM.
17. **Finkelstein, S.**, Scherer, S., Ogan, A., Morency, L. P., & Cassell, J. (2012, September). Investigating the influence of virtual peers as dialect models on students' prosodic inventory. In *Workshop on Child, Computer and Interaction (WOCCI'12). ISCA, Oregon*.
18. **Finkelstein, S.**, Ogan, A., & Cassell, J. (2012). Real collaboration with a virtual peer: Results from co-design in an early elementary context. In *Proceedings of Workshop on Intelligent Support in Exploratory Environments*.
19. Suma, E., Clark, S., **Finkelstein, S.**, and Wartell, Z. Leveraging change blindness for walking in virtual environments. In *IEEE VR Workshop on Perceptual Illusions in Virtual Environments*, page 10. 2010.
20. **Finkelstein, S.**, Nickel, A., Barnes, T., and Suma, E. Astrojumper: Designing a virtual reality exergame to motivate children with autism to exercise. In *IEEE Virtual Reality*, pages 267–268. 2010
21. Suma, E., Clark, S., **Finkelstein, S.**, and Wartell, Z. Exploiting change blindness to expand walkable space in a virtual environment. In *IEEE Virtual Reality*, pages 305–306. 2010
22. Suma, E., **Finkelstein, S.**, Reid, M., Ulinski, A., and Hodges, L. Real walking increases simulator sickness in navigationally complex virtual environments. In *IEEE Virtual Reality*, pages 245–246. 2009.
23. Suma, E., Clark, S., **Finkelstein, S.**, and Wartell, Z. An approach to redirect walking by modifying virtual world geometry. In *IEEE VR Workshop on Perceptual Illusions in Virtual Environments*, pages 16–18. 2009.
24. **Finkelstein, S.**, Nickel, A., Harrison, L., Suma, E., and Barnes, T. cMotion: A new game design to teach emotion recognition and programming logic to children using virtual humans. In *IEEE Virtual Reality*, pages 249–250. 2009.

#### workshops

#### presentations

**S. Finkelstein**, K. Doran, A. Boyce, T. Barnes. Outreach for the masses: packaging and globalizing outreach lesson plans. STARS Celebration, August 13th 2010, Orlando, FL.

**S. Finkelstein**. Designing engaging story and game-based computer science curriculum.

STARS Celebration, August 14th 2010, Championsgate, FL.

## Invited talks

Keynote speaker

National Center for Women in Technology (NCWIT) Award Ceremony for HS girls, 2011

## Awards

2011-2014

National Science Foundation (NSF) graduate research fellowship.  
\$121,500 over 3 years

2011-2016

Program for Interdisciplinary Education Research (PIER) fellow, Carnegie Mellon University. Up to \$207,500 over 5 years

2011-2014

Achievement Rewards for College Scientists (ARCS) scholarship, Carnegie Mellon University. \$15,000 over 3 years.

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Scholarship to attend Pittsburgh Science of Learning Center (PSLC) program. \$500.

2010

Sigma Xi Scientific Research Society grant. \$500

2010

Chancellor's Diversity Fund grant. \$3,500.

2010

Alumni Association scholarship (merit-based), \$3,000.

2010

College of Computing ISACA scholarship (merit-based). \$500

2010

Essam El-Kwae Student-Faculty Research Award (merit-based). \$500.

2009

Duke Energy scholarship (merit-based), \$5,000.

## Honors and activities

2013

Member of HCII's volunteer community service organization

2012-2013

Pittsburgh Regional Science and Engineering fair (PRSEF) judge, behavioral science

2011-2012

Graduate Student Association (GSA) Representative for HCII

2011-2012

Leading GradSisters peer support program with Women@SCS

2011-present

Member of Women@SCS computer science outreach group.

2009-2011

President, Association for Computing Machinery – Women (ACM-W).

2009-2011

Member & team leader, Students and Technology in Academia, Research, And Service (STARS). Performed 30 hours of educational computer science outreach per semester.

## Service to the community

Reviewer

CHI 2012 – 2013; Designing Interactive Systems 2012; Humanoids 2012; Foundation of Digital Games 2010 – 2011

Committee

IEEE Virtual Reality 2011; STARS Celebration 2012

Volunteer

Artificial Intelligence in Education 2013; IEEE Virtual Reality 2008 -2010

## Teaching

Teaching assistant

Science, Technology, and Society. 2009.

Logic and Algorithms. 2009.

Invited lectures

Technology to Support Children with Disabilities, *Human-Computer Interaction*, 2010.

Introduction to Undergraduate research, *Research Methods*. 2009.

Designing an academic research poster, *Introduction to Psychology*, 2009.

## Research experience

2010 – present

Culturally-sensitive virtual peers to support children in science and literacy, Carnegie Mellon University. *Justine Cassell, Amy Ogan*.

June 2011 - present

Building rapport with pedagogical agents, Carnegie Mellon University. *Justine Cassell, Noboru Matsuda, Amy Ogan*.

2008 – 2011  
2008 – 2011  
2008 - 2011  
2010

Technology for children with autism, UNC Charlotte, Ithaca College, *Tiffany Barnes*.  
Navigation and perception in virtual realities, UNC Charlotte. *Evan Suma*.  
Serious games for education and social support, UNC Charlotte, *Tiffany Barnes*.  
Priming and perception, UNC Charlotte, *Paula Goolkasian*.

## References

Available upon request.