John P. Quarles
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Education

Doctor of Philosophy, Computer Engineering, University of Florida

Master of Science, Computer Engineering, University of Florida

Bachelor of Science, Computer Science, The University of Texas at Austin

Academic Positions

2009 Assistant Professor, University of Texas at San Antonio

Research Interests

Virtual Reality, Augmented Reality, Mixed Reality, Simulation, Computer Graphics, Human-Computer Interaction

SCHOLARSHIP/RESEARCH/CREATIVE WORKS

Intellectual Contributions

Journal Article, Academic Journal - Peer-Reviewed/Refereed

2013

3. Quarles, J. P., Lampotang, S., Fischler, I., Fishwick, P., & Lok, B. (2013). Experiences in Mixed Reality-Based Collocated After Action Review. *Springer, 17*(3), 239-252.

2010

2. Quarles, J. P., Lampotang, S., Fischler, I., Fishwick, P., & Lok, B. (2010). A Mixed Reality Approach for Interactively Blending Dynamic Models with

Corresponding Physical Phenomena. *ACM Transactions on Modeling and Computer Simulation, 20*(4), 22.

2009

1. Quarles, J. P., Lampotang, S., Fischler, I., Fishwick, P., & Lok, B. (2009). Scaffolded Learning with Mixed Reality. *Computers and Graphics, 33*(1), 34-46.

Conference Proceeding - Peer-Reviewed/Refereed

2013

16. Rashed-Ali, H. M., Quarles, J. P., Fies, C. H., & Sanciuc, L. (in press). Use of augmented-reality in teaching energy efficiency: prototype development and testing.. Honolulu: ARCC/EAAE 2014 International Conference: New Intersections and Connections. http://www.arch.hawaii.edu/arcc-eaae2014/ (Accepted)
15. Ferrer, V., Yang, Y., Perdomo, A., & Quarles, J. P. (2013). Background Motion, Clutter, and the Impact on Virtual Object Motion Perception in Augmented Reality. In B. Mohler, B. Raffin, H. Saito, and O. Staadt (Eds.), *Joint Virtual Reality Conference of EGVE - EuroVR (2013)*. Paris, France: Eurographics, ACM.
14. Guo, R., Samaraweera, G., & Quarles, J. P. (2013). The Effects of VEs on Mobility Impaired Users: Presence, Gait, and Physiological Respons. *Proceedings of the 19th ACM Symposium on Virtual Reality Software and Technology (VRST 2013), 6-9 October 2013, Nanyang Technological University (NTU), Singapore.*. Singapore: ACM.
13. Ferrer, V., Yang, Y., Perdomo, A., & Quarles, J. P. (2013). Consider Your Clutter: Perception of Virtual Object Motion in AR. *Proceedings of the IEEE International Symposium on Mixed and Augmented Reality 2013, Works-in-progress*. Adelaide, Australia: IEEE.
12. Ferrer, V., Perdomo, A., Rashed-Ali, H. M., Fies, C. H., & Quarles, J. P. (2013). How Does Usability Impact Motivation in Augmented Reality Serious Games for Education?. Bournemouth University: Fifth International Conference on Games and Virtual Worlds for Serious Applications 2013 (VS-Games 2013).
11. Guo, R., & Quarles, J. P. (2013). Converting Sedentary Games to Exergames: A Case Study with a Car Racing Game. In IEEE (Eds.), *Proceedings of the fifth International Conference on Games and Virtual Worlds for Serious Applications 2013 (VS-Games 2013)*. Bournemouth University, UK: IEEE.
10. Fies, C. H., Quarles, J. P., Rashed-Ali, H. M., & Dancer, D. (2013). Teacher Dispositions toward Augmented Reality (AR). (pp. 3148-3153). Chesapeake, VA: SITE Proceedings. www.editlib.org/p/48578
9. Quarles, J. P., Espinoza, E., & Cantu, M. (2013). A Cane-Based 3D Interface for At-Home Rehabilitation Games. *Proceedings of the Virtual and Augmented Assistive Technology Workshop at IEEE VR 2013*. Orlando, FL: IEEE.
8. Samaraweera, G., Guo, R., & Quarles, J. P. (2013). Latency and Avatars in Virtual Environments and the Effects on Gait for Persons with Mobility Impairments. *IEEE Symposium on 3D User Interfaces*. Orlando, FL: IEEE.

2012

7. Guo, R., & Quarles, J. P. (2012). Differences in Presence between Healthy Users and Users with Multiple Sclerosis. *Proceedings of Perceptual Illusions in Virtual Environments Workshop at IEEE VR 2012*. IEEE.

2008

6. Quarles, J. P., Lampotang, S., Fischler, I., Fishwick, P., & Lok, B. (2008). Collocated AAR: Augmenting After Action Review with Mixed Reality. (pp. 107-116). Cambridge, U.K: Proceedings of the 7th IEEE and ACM International Symposium on Mixed and Augmented Reality.
5. Quarles, J. P., Lampotang, S., Fischler, I., Fishwick, P., & Lok, B. (2008). Mixed Reality Merges Abstract and Concrete Knowledge. (pp. 27-34). Reno, NV: Proceedings of IEEE Virtual Reality.
4. Quarles, J. P., Lampotang, S., Fischler, I., Fishwick, P., & Lok, B. (2008). Tangible User Interfaces Compensate for Low Spatial Cognition. (pp. 11-18). Reno, NV: Proceedings of IEEE 3D User Interfaces.

2006

3. Kotranza, A., Quarles, J. P., Wang, X., & Lok, B. (2006). Mixed Reality: Are Two Hands Better Than One. (pp. 31-34). Limassol, Cyprus: ACM Symposium on Virtual Reality Software and Technology (VRST).

2005

2. Quarles, J. P., Wang, X., Kotranza, A., Lok, B., & Allen, D. (2005). A Pipeline for Rapidly Incorporating Real Objects into a Mixed Environment. (pp. 170-173). Vienna, Austria: 4th IEEE and ACM International Symposium on Mixed and Augmented Reality.
1. Quarles, J. P., Wang, X., Kotranza, A., Lok, B., & Allen, D. (2005). Rapidly Incorporating Real Objects for Evaluation of Engineering Designs in a Mixed Reality Environment.. Bonn, Germany: Proceedings of New Directions in 3D User Interfaces Workshop, IEEE Virtual Reality.

Intellectual Property

Patent

2009

1. Quarles, J. P., Lampotang, S., Fishwick, P., & Lok, B. Provisional Patent.

Contracts, Fellowships, Grants, Sponsored Research and Residencies

Grant - Funded

5. Quarles, J. P., "CAREER: Measuring and Reducing Cybersickness in Virtual

Reality Physical Rehabilitation," Sponsored by NSF, Federal, $537,898.00. (February 2014 - February 2019).

4. Quarles, J. P. (Principal), "HCC:Small: Determining the Effects of Latency on Virtual Reality Physical Rehabilitation," Sponsored by NSF, $472,840.00. (September 2012 - September 2015).
3. Quarles, J. P. (Principal), "EAGER: Presence and Navigation in Virtual Reality Rehabilitation Games for Mobility Impaired Persons," Sponsored by NSF, $232,676.00. (September 2011 - August 2013).
2. Quarles, J. P. (Principal), "A Mixed Reality Conscious Sedation Simulator for Learning to Manage Variability," Sponsored by NIH, $332,526.00. (April 2011 - March 2013).
1. Fies, C. H. (Principal), Quarles, J. P., & Rashed-Ali, H. M., "Augmented Reality," Sponsored by CPS-TSERI, $155,000.00. (2010 - 2012).

Grant - Currently Under Review

2014

1. Mason, L. L. (Co-Principal), Quarles, J. P. (Co-Principal), & Yuen, T. T.-M. (Principal), "REAL: Virtual collaborative computing environments for improving the social skills of students with autism," Sponsored by National Science Foundation, Federal, $1,142,346.00. (September 2014 - Present).

Contract - Funded

2009

1. Quarles, J. P. (Co-Principal), "Mixed Reality Simulation for Anesthesia Training," Sponsored by Drager Medical, $35,000.00. (August 2008 - July 2009).

Fellowship - Funded

2009

1. Quarles, J. P., Sponsored by Link Foundation, $25,000.00. (September 2008 - May 2009).

Presentations

Paper - Peer-Reviewed/Refereed

2013

4. Fies, C. H., Quarles, J. P., Rashed-Ali, H. M., & Dancer, D., "Teacher Dispositions toward Augmented Reality (AR)," Society for Information Technology and Teacher Education (SITE), New Orleans. (March 28, 2013).

2008

3. Quarles, J. P., "Collocated AAR: Augmenting After Action Review with Mixed Reality," 7th IEEE and ACM International Symposium on Mixed and Augmented

Reality, Cambridge, U.K. (September 16, 2008).

2. Quarles, J. P., "Mixed Reality Merges Abstract and Concrete Knowledge," IEEE Virtual Reality, Reno, NV. (March 10, 2008).
1. Quarles, J. P., "Tangible User Interfaces Compensate for Low Spatial Cognition," IEEE 3D User Interfaces, Reno, NV. (March 8, 2008).

Invited Talk - Not Peer-Reviewed/Refereed

2013

1. Quarles, J. P., "VR for Disabled Persons: Current Research and Future Challenges," Dagstuhl Event 13241 Virtual Realities, Dagstuhl, Germany. (June 2013).

Oral Presentation - Not Peer-Reviewed/Refereed

2008

2. Quarles, J. P., "The Augmented Anesthesia Machine: A Mixed Reality Application in Anesthesia," Simulation Faculty Learning Community, Gainesville, FL. (October 27, 2008).
1. Quarles, J. P., "Collocated After Action Review with the Augmented Anesthesia Machine," American Society Of Anesthesiologists Annual Meeting, Dräger Customer Appreciation Event, Orlando, FL. (October 21, 2008).

TEACHING

Teaching Interests

Computer Graphics, Human-Computer Interaction, Game Development

Courses Taught

Graduate
- CS 5153 User Interfaces and Usability (Fall 2010 - Fall 2013)
- CS 5113 Computer Graphics (Spring 2011 - Spring 2014)

Undergraduate
- CS 4393 User Interfaces and Usability (Fall 2010 - Fall 2013)
- CS 2123/2121 Data Structures (Fall 2011 - Fall 2013)
- CS 4383 Computer Graphics (Spring 2011 - Spring 2014)
-CS 1063 Introduction to Programming (Spring 2010)

SERVICE

Department Service

2013 - Present	Committee Member, Graduate Recruitment Committee
2012 - Present	Exam Proctor, Ph.D. Qualifying Exam Committee
2012 - Present	Secretary
2009 - 2013	Communications Committee

College Service

2010 - Present	Faculty Sponsor, The official UTSA Game Development Club
2011	Faculty Advisor, I have advised and/or supervised the following students in research: • Undergraduate Students: Alex Perdomo, Daniel Curran Masters Students: Vicente Ferrer, Jason Jendrusch, Werner Mendizabal, Ernest Holloway, Son Nguyen • Ph.D. Students: Rongkai Guo

Professional Service

2013 - Present	Publicity Chair, IEEE Virtual Reality
2010 - Present	Reviewer, Conference Paper, IEEE Virtual Reality
2009 - Present	Tutorials Chair, IEEE/ACM International Symposium on Mixed and Augmented Reality
2009 - Present	Reviewer, Conference Paper, IEEE/ACM International Symposium on Mixed and Augmented Reality
2009 - Present	Reviewer, Conference Paper, IEEE/ACM International Symposium on Mixed and Augmented Reality
2014	Committee Member, IEEE Virtual Reality Program Committee
2013	Publicity Chair, IEEE Virtual Reality
2013	Publicity Chair, IEEE Virtual Reality
2013	Workshop Organizer, Workshop on Virtual and Augmented Assistive Technology

2013	Panelist, NSF
2012	Reviewer, Conference Paper, IEEE 3DUI
2012	Area Co-chair, IEEE International Conference on Pattern Recognition
2012	Videos Chair, IEEE Virtual Reality
2012	Program Committee, IEEE Virtual Reality
2012	Panelist, NSF
2010 - 2011	Exhibits Chair, IEEE Virtual Reality
2010	PREP/GEMS Guest Speaker, Northwest Vista College
2010	Panelist, NSF
2009	Reviewer, Conference Paper, ACM Joint Virtual Reality Conference
2009	Reviewer, Journal Article, International Journal of Human-Computer Studies

Public Service

2011	Faculty Advisor, Flashscan 3D

Awards, Honors, and Biographical Listings

2013	Certificate of Excellence, UTSA College of Science
2008	3rd Prize for Scientific Exhibits at the American Society of Anesthesiologists Conference
2008	CISE Travel Grant, University of Florida
2008	Student Government Travel Grant, University of Florida
2005	CISE Travel Grant from University of Florida
2004	Graduated with Special Honors from UT Austin

Professional Memberships

2012 - Present	Association of Computing and Machinery
2008 - Present	Institute of Electrical and Electronics Engineers
2004 - Present	Phi Beta Kappa

Faculty Development Activities Attended

2012	Conference Attendance, Virtual Reality, IEEE, Costa Mesa, CA
2012	Workshop, Tenure & Time Management: How to Manage Your Time so You Can Publish Prolifically AND Have a Life Beyond the Ivory Tower, National Center for Faculty Development & Diversity, Ssan Antonio, TX
2011	Conference Attendance, Virtual Reality, IEEE, Singapore
2011	UTSA
2010	Conference Attendance, Virtual Reality, IEEE, Waltham, MA
2009	Conference Attendance, International Symposium on Mixed and Augmented Reality
2009	Tutorial, Systems, Man, and Cybernetics Tutorial on Brain-Machine Interfaces, San Antonio, TX