

JULIAN BRINKLEY, Ph.D.

CURRICULUM VITAE

Assistant Professor
Human-Centered Computing Division
School of Computing
Clemson University

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EDUCATION

University of Florida, Gainesville, FL, 2018
Ph.D. in Human Centered Computing
Dissertation: *Autonomous Vehicles and Visually Impaired Operators*

East Carolina University, Greenville, NC, 2014
M.S. in Software Engineering
Thesis: *Social Networking Sites and Blind Users: Problem Description, System Evaluation and Semantic Web Solution*

University of North Carolina - Greensboro, Greensboro, NC, 2011
B.A. in Humanities

EMPLOYMENT

Clemson University, Clemson, SC
Human-Centered Computing Division:
Assistant Professor, 2018 – Present

School of Computing:
Graduate Research Assistant, 2015
Graduate Teaching Assistant, 2014

Youth Learning Institute:
Senior Software Developer, 2014 – 2018

Santa Fe College, Gainesville, FL
Information Technology Education:
Adjunct Assistant Professor, 2016 – Present

Harris Corporation, Melbourne, FL
User Experience Researcher, 2016

University of Florida, Gainesville, FL
Computer and Information Science and Engineering:
Graduate Research Assistant, 2015 – 2016


East Carolina University, Greenville, NC
School of Computing:
Graduate Teaching Assistant, 2013 – 2014
Graduate Research Assistant, 2012 – 2014

Centrex Systems, Wilmington, DE
Senior Web Developer & Project Manager, 2011 – 2013

Refereed Journal Publications

- [J.5] **Brinkley, J.**, Posadas, B. Sherman, I., Daily, S. B. & Gilbert, J. E. (2019). An Open Road Evaluation of a Self-Driving Vehicle Human-Machine Interface Designed for Visually Impaired Users. *International Journal of Human-Computer Interaction*.
- [J.4] **Brinkley, J.**, Daily, S. B. & Gilbert, J. E. (2019). A Policy Proposal to Support Self-Driving Vehicle Accessibility. *Journal on Technology and Persons with Disabilities* 7, 35-43.
- [J.3] **Brinkley, J.**, Daily, S. B. & Gilbert, J. E. (2019). Implementing the ATLAS Self-Driving Vehicle Voice User Interface. *Journal on Technology and Persons with Disabilities* 7, 133-140.
- [J.2] **Brinkley, J.**, Daily, S. B. & Gilbert, J. E. (2018). A Survey of Visually Impaired Consumers About Self-Driving Vehicles. *Journal on Technology and Persons with Disabilities* 6, 273-282.
- [J.1] Shahbazi E., **Brinkley, J.** & Tabrizi, M. (2013). A Distributed Key-Based Security Framework For Private Clouds. *Journal of Applied Computer Science and Applications* 4 (9), 79-83.

Refereed Conference Proceedings

- [C.8] **Brinkley, J.**, Posadas, B., Woodward, J. & Gilbert, J. E. (2017). Opinions and Preferences of Blind and Low Vision Consumers Regarding Self-Driving Vehicles: Results of Focus Group Discussions. *Proceedings of the 19th International SIG ACCESS Conference on Computers and Accessibility*, 290-299. Baltimore, MD.
- [C.7] **Brinkley, J.**, Dunbar, J. Smith, J. D. & Gilbert, J. E. (2017). A Usability Evaluation of the BMW Active Cruise Control System with "Stop and Go" Function. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 61 (1), 1536-1540. Sage Publications. Austin, TX.
-  [C.6] **Brinkley, J.** & Tabrizi, M. (2017). A Desktop Usability Evaluation of the Facebook Mobile Interface using the JAWS Screen Reader with Blind Users. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 61 (1), 828-832. Sage Publications. Austin, TX. [Honorable Mention Marc Resnick Best Paper Award]
- [C.5] **Brinkley, J.**, Hoffman, D. & Tabrizi, M. (2017). A Social Networking Site Portable Profile System for Blind and Visually Impaired Users Based on Cloud and Semantic Web Technologies. *Proceedings of the IEEE Conference on Cognitive Computing*, 104-111. Honolulu, HI.
- [C.4] Dillon, E. C., **Brinkley, J.**, Moon, D., Gilbert, J. E., Kang, S. C. & Williams, B. N. (2016). Bridging The Safety Divide Through Technology To Improve The Partnership Between Students and Campus Law-Enforcement. *Proceedings of the International Conference on Urban Education*. San Juan, Puerto Rico.
- [C.3] Rowe, F., **Brinkley, J.** & Tabrizi, M. (2013). Migrating Existing Applications to the Cloud. *Proceedings of the IEEE International Conference on Cloud Computing and Big Data*, 68-77. FuZhou, China.
- [C.2] Bazargani, S., **Brinkley, J.** & Tabrizi, M. (2013). Implementing Conceptual Search Capability in a Cloud-Based Feed Aggregator. *Proceedings of the IEEE 3rd International Conference on Innovative Computing Technology*, 138-143. London, UK.

[C.1] Bazargani, S., **Brinkley, J.** & Tabrizi, M. (2012). Developing An Agent-Based Feed Analyzer in the Cloud. *Proceedings of the IEEE 4th International Conference on Cloud Computing, Technology and Science*, 217-224. Taipei, Taiwan.

Refereed Conference Posters (Peer Reviewed)

[CP.2] **Brinkley, J.**, Biswas, S., Gupta, V. & Gilbert, J. E. (2017). A Case Study Documenting the Development of Job Assist: A Speech-Based Job Search System for Individuals with Visual Impairments. *The Human Factors and Ergonomics Society Annual Meeting*. Austin, TX.



[CP.1] **Brinkley, J.** & Tabrizi, M. (2013). A Pilot Study Examining the Online Behavior of the Visually Impaired. *The Annual Symposium on Human-Computer Interaction and Information Retrieval*. Vancouver, BC. [Best Graduate Poster, East Carolina University Research Creative Achievement Week]

Workshop Papers (Lightly Reviewed)

[WS.2] **Brinkley, J.** (2018). Accessible Voice Interfaces in Self-Driving Vehicles. *Accessible Voice Interfaces Workshop at CSCW*. Jersey City, NJ.

[WS.1] **Brinkley, J.** (2018). Autonomous Trucks and Persons with Disabilities. *Impact of Autonomous Trucks on the US Economy*. Arlington, VA.

Book Chapters (Peer Reviewed)

[BC.1] Dillon, E. C., Williams, B. N., Kang, S. C., Gilbert, J. E. **Brinkley, J.** & Moon. (2017). Bridging The Safety Divide Through Technology To Improve the Partnership Between Students and Campus Law Enforcement: An 'App' Opportunity. In J.D. Ward (Eds.) *Policing and Race in America: Economic, Political and Social Dynamics*. Lexington Books, pp. 207-219.

Technical Reports

[TR.4] **Brinkley, J.** & Hynes P. (2016). *User Recognition of Emergency Operation Center Alert Notifications*. Melbourne, FL. Harris Corporation.

[TR.3] **Brinkley, J.** & Hynes P. (2015). *Understanding Emergency Operation Center Information Needs*. Melbourne, FL: Harris Corporation.

[TR.2] **Brinkley, J.**, Kasperzok, A. & Smith, J. D. (2015). *Towards Ad-Hoc Vehicle Interaction Networks Inspired By Ant Colony Behavior*. Melbourne, FL. Harris Corporation.

[TR.1] Eichelberger, J., **Brinkley, J.**, Bateman, D. S. (2015). *Operation of the National Information Management and Support System*. Washington, DC. United States Department of Agriculture.

PRESENTATIONS

[P.13] **Brinkley, J.** (November, 2018). *Self-Driving Vehicles and Visually Impaired Operators*. University of North Carolina-Charlotte. Charlotte, NC.

[P.12] **Brinkley, J.** (October, 2018). *Accessible Self-Driving Vehicles for Visually Impaired Operators*. Morehouse College. Atlanta, GA.

- [P.11] **Brinkley, J.** (July, 2018). *Autonomous Vehicle Accessibility*. The National Federation of the Blind Annual Convention. Orlando, FL.
- [P.10] **Brinkley, J.** (April, 2018). *Opinions and Preferences of Blind and Low Vision Consumers Regarding Self-Driving Vehicles: Results of Focus Group Discussions*. Research presentation to the SAE International task force on Identifying ADS-DV User Issues for Persons with Disabilities. Gainesville, FL.
- [P.9] **Brinkley, J.** (March, 2018). *A Survey of Visually Impaired Consumers About Self-Driving Vehicles*. Research presentation at the 33rd CSUN Assistive Technology Conference. San Diego, CA.
- [P.8] **Brinkley, J.** (March, 2017). *A Crash Course in Design Thinking*. Lecture to graduate and undergraduate “Affective Computing” students at the University of Florida. Gainesville, FL.
- [P.7] **Brinkley, J.** (October, 2016). *The Benefits of Autonomous Vehicles for Disabled Users*. Presentation to the Alachua County Council of the Blind. Gainesville, FL.
- [P.6] **Brinkley, J.** (July, 2016). *A Multi-Method Usability Evaluation of the Facebook Mobile Interface Involving Blind Users*. Research presentation at the 7th International Conference on Applied Human Factors and Ergonomics. Orlando, FL.
- [P.5] **Brinkley, J.** (July, 2016). *User Recognition of Emergency Operation Center Alert Notifications: Study Results*. Research presentation to the user experience research leadership of Harris Corporation. Melbourne, FL.
- [P.4] **Brinkley, J. & Hynes, P.** (January, 2016). *Understanding Emergency Operation Center Information Needs*. Research presentation to the user experience research leadership of Harris Corporation. Melbourne, FL.
- [P.3] **Brinkley, J.** (April, 2015). *Results of the Usability Evaluation of the BMW Active Cruise Control System with “Stop and Go” Function*. Research presentation to the automotive user experience research leadership of Intel Corporation. Chandler, AZ.
- [P.2] **Brinkley, J.** (February, 2015). *Research Review of Interaction Network Algorithms Inspired By Nature*. Presentation to the user experience research leadership of Harris Corporation. Clemson University - ICAR, Greenville, SC.
- [P.1] **Brinkley, J.** (April, 2014). *Human-Computer Interaction and Electronic Health Records*. Invited presentation as part of the applied software engineering series at East Carolina University. Greenville, NC.

SELECTED MEDIA COVERAGE

- [MC.6] Jason Dearan. (April, 2018). **The New York Times**. “Driverless cars give hope to the blind – are automakers on board?” <https://www.nytimes.com/aponline/2018/04/13/us/ap-us-autonomous-cars-the-blind.html>

- [MC.5] Tamara Lush (April, 2018). **The Associated Press**. "Self-Driving Cars to Potentially Aid the Blind" <https://bit.ly/2HgH3DF>
- [MC.4] Staff, Jason Dearan (April, 2018). **The Daily Mail**. "Blind people demand the right to be behind the wheel of driverless cars and urge automakers to create technology that suits their needs" <http://www.dailymail.co.uk/news/article-5610943/Driverless-cars-hope-blind-automakers-onboard.html>
- [MC.3] Steve Orlando (April, 2018). **UF News**. "For the visually impaired, a better autonomous vehicle experience" <http://news.ufl.edu/articles/2018/04/for-the-visually-impaired-a-better-autonomous-vehicle-experience.php>
- [MC.2] Vivian Nguyen (April, 2018). **The Independent Florida Alligator**. "UF researcher's project to help blind, visually impaired" http://www.alligator.org/news/uf-researcher-s-project-to-help-blind-visually-impaired/article_67f5c97e-4698-11e8-92fa-af365daa5709.html
- [MC.1] Staff (April, 2018). **Association for Unmanned Vehicle Systems International**. "University of Florida study seeks to ensure autonomous cars meet needs of the blind" <http://www.auvsi.org/industry-news/university-florida-study-seeks-ensure-autonomous-cars-meet-needs-blind>

TEACHING EXPERIENCE

Clemson University

HCC 8810 Inclusive Design and Accessible Technology, S2019

CPSC 1990 Creative Inquiry: Inclusive Design and Accessible Technology, S2019

CPSC 3990 Advanced Creative Inquiry: Inclusive Design and Accessible Technology, S2019

CPSC 2920 Computing, Ethics and Society, F2018

Santa Fe College

CSCI 3303 Object Oriented Analysis and Design, 2016, 2018

CGS 1060 Computer Concepts, 2016

East Carolina University

CPSC 2120 Algorithms and Data Structures, Teaching Assistant, 2014

CSCI 1001 Intro. to Computer Science for Non-Majors, Teaching Assistant – Sole Course Instructor, 2013 - 2014

SENG 6255 Software Requirements Engineering, Teaching Assistant, 2013

FELLOWSHIPS, HONORS & AWARDS

Harris Corporation Fellowship (\$26,000), 2015

NSF Scholarship in Science, Technology, Engineering and Mathematics (\$10,000), 2015

Outstanding Computer Science Graduate Student, East Carolina University Department of Computer Science, 2014

ACM Special Interest Group on Information Retrieval, Travel Grant, 2013

SERVICE & VOLUNTEER WORK

Reviewing (Research Project Funding)

- National Science Foundation 2018,2019
- Southeastern Transportation Research Innovation, Development and Education Center 2018

Reviewing (Journal and Conference)

- ACM Conference on Human Factors in Computing Systems 2018
- International Driving Symposium on Human Factors in Driver Assessment 2018

Technical Program Session Chair

- Human Factors and Ergonomics Society Annual Meeting 2017

Other Professional Service

- University of Florida, Transportation Team Lead 2016 – 2018
- East Carolina University
 - Webmaster 2013 – 2014
 - Undergraduate Outreach and Student Recruitment 2014
 - Research Experiences for Undergraduates Student Supervisor 2014
- Five Start Commitment to Driver Safety, Software Developer 2012

PROFESSIONAL SOCIETY MEMBERSHIPS

American Association for the Advancement of Science (AAAS)

Association of Computing Machinery

Human Factors and Ergonomics Society

IEEE Computer Society Technical Council on Software Engineering

Institute of Electrical and Electronics Engineers

National Federation of the Blind

National Society of Black Engineers

Society of Automotive Engineers