Robert J Sall

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EDUCATION

PhD., North Carolina State University (2020), **Human Factors & Applied Cognition.**

Advisor: Jing Feng

B.S., Florida State University (2013) **Psychology;** Honors in the Major

PUBLICATIONS AND PROCEEDINGS

Feng, J., Sanchez, J., **Sall**, R.J., Lyon, J., Nam, C.S. (2019). Emotional Expressions Facilitate Human-Human Trust When Using Automation in High-Risk Situations. *Military Psychology*, 31(4), 292-305.

Sall, R. J., & Feng, J. (2019). Dual-target hazard perception: Could identifying one hazard hinder a driver's capacity to find a second? *Accident Analysis & Prevention*, 131, 213-224.

Sall, R.J. Choi, H., & Feng, J. (2018). Bringing Older Drivers up to Speed with Technology: Cognitive Changes, Training, and Advances in Transportation Technology. In McLaughlin, A.C., & Pak, R. (Eds), *Aging, Technology, and Health*. Elsevier.

Sall, R., Lefebvre, E., Neupert, S., & Feng, J. (2018). What Can Intraindividual Variability Teach Us About Dual-Target Visual Search? *Journal of Vision*, 18(10), 640-640.

Sall, R. J., Wu, S., Spence, I., & Feng, J. (2017). Destination, Seen Unclearly: Relevance of Head-Up Display Information to Driving Is Unrelated to Its Processing. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 61, No. 1, pp. 1899-1903). Sage CA: Los Angeles, CA: SAGE Publications.

Sall, R.J. & Feng, J. (2016). Better off Alone: The Presence of One Hazard Impedes Detection of Another in Simulated Traffic Scenes. *Proceedings of the Human Factors and Ergonomics Society 60th Annual Meeting*. Washington, DC: Human Factors and Ergonomics Society.

Boot, W., **Sall**, R., & Wright, T. (2014). The Effect of Simulated Red Light Running Camera Flashes on Attention and Oculomotor Control. *Journal of Vision*, 14(10), 327-327.

Sall, R. J., Wright, T. J., & Boot, W. R. (2014). Driven to distraction? The effect of simulated red light running camera flashes on attention and oculomotor control. *Visual Cognition*, 22, 57-73.

PROFESSIONAL EXPERIENCE

Scientist, Exponent   2020-Present

    Support expert witness testimony for civil litigation
    Submitting and executing bids for federally funded research (e.g., NHTSA)

Ergonomic and usability studies for major technology companies

UX Research Intern, BB&T   Summer 2018

    Moderated: think aloud, cognitive walkthroughs, structured interviews
    Unmoderated usability testing: click tests, surveys, card sorting
    Qualitative and quantitative data analysis
    Collaborating with designers, software engineers, and operation managers to implement insights from research
    Heuristic analysis, inspecting for compliance with standards for design with visually impaired users

Research Assistant, North Carolina State University   2017-2020

    Contribute to theoretical discussions of cognitive deficits faced by older drivers
    Develop experimental design, task, and stimuli, to test those hypotheses related to aging drivers
    Manage undergraduate research assistants in data collection, and analysis

Contracted Researcher, Dunlap and Associates, Inc.   2018-2020

    Co-authored RFP submissions
    Assisted in contracted human factors field research (transportation domain)

Teaching Assistant, North Carolina State University   2015-2020

    Introductory Psychology
    Abnormal Psychology
    Social Psychology
    Biological Psychology
    Biological Psychology- Spring 2019 primary instructor

Instructor, Duke University's Talent Identification Program   2016-2017

    Courses Taught:
- Introductory psychology
- Food Psychology
- Cognition and creativity
- Social psychology
- Applied psychology

SKILL

Experimental Design
- Generating research questions, hypotheses and literature reviews
- Emphasis in visual search, decision making, cognitive training, and intraindividual variance
- Qualitative data (e.g., ethnographic observations, focus groups, think aloud protocols)
- Quantitative data (e.g., timing, accuracy, eye-tracking)

Statistical analysis (e.g., OLS regression, ANOVA, MLM)
- SPSS
- SAS
- R Studio

Experimental toolkit:
- PsyToolKit
- E-prime
- Qualtrics
- STISIM 3 driving simulator
- FaceLAB 5 eye-tracker

       o   Some experience implementing MATLAB packages

Prototyping and 3D modeling
- o TinkerCad
- o VCarvePro
- o Sketchup

Human Factors Methodologies
- o Formative usability analysis techniques (e.g., task analysis, cognitive walkthroughs, contextual observations)
- o Summative usability testing (e.g., hypothesis testing for survey and behavioral a-b testing)
- o Summative usability
- o contextual observations
- o multidimensional scaling for mental models
- o Eye-tracking

SERVICE

Reviewer- Human Factors and Ergonomics Annual Meeting (2017 and 2018)
Guest Reviewer- *PLOSONE* (under supervision of my advisor)
Newsletter Editor- APA Division 21 (2017-2018 academic year)
Newsletter Editor- HFES, Training Technical Group ((2017-2018 academic year)
Outreach Chair- HFES Student Chapter, NCSU (2016)
Secretary- Graduate Association for Students in Psychology (2016)
Academic and Research Committee Chari- Pi Gamma Mu, FSU (2012)

HONORS AND AWARDS

Student Grant Award 2017- $750 for best student proposal from the Human Factors and Ergonomics Society's Training Technical Group
Best student paper finalist- Recognized by the Surface Transportation Technical Group of the Human Factors and Ergonomics Society
Honors in the Major- Florida State University
Dean's List, Palm Beach State College (2009)
Dean's List, University of South Carolina, Beaufort (2008)

CURRENT MEMBERSHIPS

Human Factors and Ergonomics Society
American Psychological Association
Vision Science Society
American Association for the Advancement of Science

RELEVANT GRADUATE COURSEWORK

Statistics and general research methods (4 semesters) (STA511, PSY880.1, PSY880.2, PSY880.3-Multilevel Modeling)
Human Factors, Ergonomics, Human-Computer Interacrtion (3 semesters) (PSY541, PSY743, ISE 740)
Adulthood and aging: Cognitive and Intellectual Change
Skill Acquisition
Perception
Human Attention
Physiological Psychology