

# Aaron Crowson

User Experience Researcher | PhD Student in Human Factors

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## Education

- 2017 - Present**     *North Carolina State University*, Raleigh, NC  
*Doctor of Philosophy in Psychology*; Human Factors and Applied Cognition; GPA: 4.00  
*Advisor*: Dr. Christopher B. Mayhorn  
*Expected Thesis Defense*: Dec 2023
- 2012 - 2016**     *Winona State University*, Winona, MN  
*Bachelor of Arts in Psychology*; GPA: 3.50

## Professional Experience

### *March 2021 - Present: UX Researcher & Designer*

Joint Special Operations Command, Fort Bragg, NC

- Created user interfaces for four applications based on research and lead the development of their implementation
- Conducted a number of research projects to improve system usability for existing software application in support of the command's missions
- Created and conducted user interviews with the purpose of gaining insight into user problem sets.
- Offered solutions to complex problems within the workflow of users using that to develop appropriate software design to match
- Engaged in biweekly stakeholder meetings to manage expectations and showcase application progress

### *January 2019 - January 2022: Primary Instructor*

North Carolina State University, Raleigh, NC

- Classroom instructor for undergraduate courses in *abnormal psychology* and *cognitive processes*.
- Learned instruction material outside field of study
- Developed and implemented lesson plans
- Created and administered exams for student assessment
- Created final projects to reflect student learning
- Adapted teaching methods to fit an online learning environment

**May 2018 - October 2019: Graduate Research Assistant**

Applied Cognitive Psychology Lab, North Carolina State University, Raleigh, NC

*Under the Direction of Dr. Jing Feng*

- Collected and analyzed data using Excel and SPSS
- Recruited participants through phone calls
- Developed research stimulus from a STISIM driving simulator
- Identified and photoshopped research stimulus
- Developed and wrote a standard operating procedure
- Managed a small team to see successful completion of data collection

**Aug 2017 - Present: Graduate Researcher**

Ergonomics and Aging Lab, North Carolina State University, Raleigh, NC

*Under the Direction of Dr. Christopher B. Mayhorn*

- Wrote and published manuscripts
- Wrote and published conference proceedings papers
- Presented research findings at professional conferences (eg: HFES)
- Developed and implemented Qualtrics online surveys
- Directed the development and implementation of a unity engine game for research
- Analyzed data using SPSS and Excel
- Mentored two undergraduate students on their individual research project designs/implementations

**May 2016 - Jan 2017: Health Sciences Researcher**

Mayo Clinic, Rochester, MN

- Conducted data entry using Redcap
- Conducted data analysis and interpretation
- Wrote and published a first author paper in the Journal of Rheumatology
- Presented research findings at an international conference in London
- Handled physical and digital patient records
- Conducted an extensive international literature

## Relevant Graduate Projects

Training with Koda: A Free Website for the New Dog Owner Based on Learning and Motivation Principles. Learning and Motivation Psychology (Spring 2020). North Carolina State University with *Dr. Doug Gillan*.

- Developed a website to inform new dog owners about the practices for training their puppies.

- Utilized principles from Learning and Motivation literature to support training tips providing a unique tool to new dog owners as compared to current training websites

The Human Factors Wiki Project: Development and Evaluation. Ergonomic Performance Assessment (Fall 2019). North Carolina State University with *Dr. Doug Gillan*.

- Developed a wiki/blog hybrid website to house critical information on Human Factors methods and definitions for easy access to outsiders interested in the field
- Evaluated the usability of the website utilizing task analysis, heuristic evaluations, and user surveys
- Presented recommendations for improvement for a more user friendly website based on analyses

Engage Usability Project: Creating an Interactive Tutorial to Encourage Gameplay. Human Factors Psychology (Fall 2017). North Carolina State University with *Dr. Anne McLaughlin*.

- Evaluated an educational game entitled “Engage” for critical usability issues within the tutorial
- Designed a new mock-up tutorial using Powerpoint based on task analyses, heuristic evaluations, and universal design principles
- Tested new tutorial on participants using think alouds and user surveys
- Presented findings to stakeholders explaining how to best improve the usability of “Engage’s” tutorial

## Publications

### Manuscripts and Proceeding Papers

Ferrell, T., Crowson, A., Mayhorn, C. B. (2022). How we perceive and trust advice from virtual humans: The influence of voice quality. *Proceedings of the Human Factors and Ergonomics Society 66th Annual Meeting*.

Richardson, K., McLaughlin, A. C., McDonald, M., Crowson, A. (2021). The effects of diminished reality on the detection of and response to notifications. *Proceedings of the Human Factors and Ergonomics Society 65th Annual Meeting*.

Yuan, J., Crowson, A., Richardson G., Feng, J. (2021). Drive aware training: A computerized training program for older drivers' detection of road hazards. *Traffic Injury Prevention*.

- Lawson, P., Pearson, C. J., **Crowson, A.**, Mayhorn, C. B. (2020). Email phishing: Role of persuasion principle and personality on identification accuracy. Contribution to signal detection response pattern. *Applied Ergonomics*.
- Crowson, A.**, Pugh, Z., Wilkinson, M., Mayhorn, C.B. (2020). Who is in the room? Notifications for intrusion while in virtual reality. *Proceedings of the Human Factors and Ergonomics Society 64th Annual Meeting*.
- Crowson, A.**, Wilkinson, M., Wagner, R. B., Wilson, R., Gillan, D., (2020). Emotion task analysis: Proposing a tool for the assessment of emotional components in a task. *Proceedings of the Human Factors and Ergonomics Society 64th Annual Meeting*.
- Wilkinson, M., Pugh, Z., **Crowson, A.**, Feng, J. (2019). Manipulating arousal in virtual reality: A feasibility study using slow motion experience. *Proceedings of the Human Factors and Ergonomics Society 63rd Annual Meeting*.
- Lawson, P., **Crowson, A.**, Mayhorn, C.B. (2018). Baiting the hook: Exploring the interaction of personality and persuasion tactics in email phishing attacks. *Proceedings of the 20th World Congress of the International Ergonomics Association*.
- Lawson, P., Zielinska, O., **Crowson, A.**, Pearson, C., Mayhorn, C.B. (2017). Phishing susceptibility: using signal detection theory to deconstruct response bias. *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*.
- Crowson, A.**, Colligan, R., Matteson, E., Davis, J., Crowson, C (2017). Explanatory style in patients with rheumatoid arthritis: an unrecognized predictor of mortality. *Journal of Rheumatology*.

### Conference Presentations

- Ferrell, T., **Crowson, A.**, Mayhorn, C. B. How we perceive and trust advice from virtual humans: The influence of voice quality. *Poster presentation delivered at the Human Factors and Ergonomics Society meeting, Atlanta, GA, October 2022*.
- Richardson, K., McLaughlin, A. C., McDonald, M., **Crowson, A.** The effects of diminished reality on the detection of and response to notifications. *Lecture presentation delivered at the Human Factors and Ergonomics Society meeting, Baltimore, MD, October 2021*.
- Crowson, A.**, Pugh, Z., Wilkinson, M., Mayhorn, C.B. Who is in the room? Notifications for intrusion while in virtual reality. *Lecture presentation delivered at the Human Factors and Ergonomics Society meeting, Virtually, October 2020*.

- Crowson, A., Wilkinson, M., Wagner, R. B., Wilson, R., Gillan, D. Emotion task analysis: Proposing a tool for the assessment of emotional components in a task. *Poster* presentation delivered at the Human Factors and Ergonomics Society meeting, Virtually, October 2020.
- Wilkinson, M., Pugh, Z., Crowson, A., Feng, J. Manipulating arousal in virtual reality: A feasibility study using slow motion experience. *Poster* presentation delivered at the Human Factors and Ergonomics Society meeting, Seattle, WA, November 2019.
- Wilkinson, M., Pugh, Z., Crowson, A., Feng, J., Mayhorn, C.B., Gillan, D. Manipulating arousal in virtual reality. *Poster* presentation delivered at North Carolina Cognition Conference, Raleigh, NC, March 2019.
- Lawson, P., Zielinska, O., Crowson, A., Pearson, C., Mayhorn, C.B. Phishing susceptibility: using signal detection theory to deconstruct response bias. *Poster* presentation delivered at the Human Factors and Ergonomic Society meeting, Austin, TX, October 2017.
- Crowson, A., Colligan, R., Matteson, E., Davis, J., Crowson, C. Personality traits in patients with rheumatoid arthritis: an unrecognized predictor of mortality. *Poster* presentation delivered at the European League Against Rheumatism. London, UK, June 2016.
- Altum, J., Crowson, A., Sargent, A., Casselman, R. Parental factors, rejection, and emotional dysregulation: a mediation study. *Poster* presentation at the Minnesota Psychological Association meeting, Minneapolis, MN, April 2016.
- Sargent, A. Crowson, A., Altum, J. Casselman, R. Parental rejection and emotional dysregulation: examining the roles of self-esteem and insecure adult attachment. *Poster* presentation at the Minnesota Psychological Association meeting, Minneapolis, MN, April 2016.

## Awards, Honors, and Affiliations

Graduate Association of Student in Psychology Webmaster  
*May 2018 - May 2021, Raleigh NC (elected three terms in a row)*

Triangle User Experience Professionals Association Member  
*May 2020 - Present, Raleigh NC*

Human Factors and Ergonomics Society Member  
*August 2019 - Present, Santa Monica CA*

Dean's List (3.5 GPA or higher) five semesters  
*May 2014 - May 2016, Winona MN*

Merit-Based \$12,000 scholarship from Mayo Clinic  
*August 2014 - May 2016, Winona MN*

Eagle Scout of America  
*Oct 2012, Rochester MN*

## Skills

A/B Testing | Card Sorting | Think-Aloud Protocol | Heuristic Evaluation | Wireframes | Quantitative Research | Qualitative Research | UX Research Strategy | UX Research Operations | Statistical Analysis | Data Visualization | SPSS | Excel | Usability Testing Survey Design | Participant Recruiting | Interviewing | Photoshop | STISIM | Qualtrics | Oculus Rift | HTC Vive | Wordpress | Wix

## Coursework

Overview of Human Factors | Cognitive Process | Learning and Motivation | Quantitative Methods in Psychology I | Quantitative Methods in Psychology II | Qualitative Research Methods | Seminar in Human Attention | Ethics in Research | Advanced Developmental Psychology | Visual Perception | Seminar in Skill Acquisition and Training | Physiological Psychology | Training Research | Ergonomic Performance Assessment