

MATTIE N. MILNER

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EDUCATION

- PhD** Human Factors Psychology | *Embry-Riddle Aeronautical University* expected May 2020
- MS** Human Factors Psychology | *Embry-Riddle Aeronautical University* May 2018
- BS** Psychology | Centenary College of Louisiana May 2016
Graduated Cum Laude

PUBLICATIONS

Trade Publications

- Milner, M. N. & Rice, S. (2019, May). Robotic health care is coming to a hospital near you. *The Conversation*. <https://theconversation.com/robotic-health-care-is-coming-to-a-hospital-near-you-116236>
- Rice, S. & Milner, M. N. (2019, April). Don't shoot! That drone overhead probably isn't invading your privacy. *The Conversation*. <https://theconversation.com/dont-shoot-that-drone-overhead-probably-isnt-invading-your-privacy-114701>

Journal Papers under Review

- Milner, M. N.**, Rice, S., Tamilselvan, G., & Winter, S. R. (under review). Why are consumers less willing to fly in a fully autonomous aircraft? A qualitative investigation. *Journal of Air Transport Management*.
- Milner, M. N.**, *Anania, E. C., *Candelaria-Oquendo, K., Rice, S., & Winter, S. R. (under review). Patient perceptions of new robotic technologies in clinical restorative dentistry, *Journal of Medical Systems*.
- Milner, M. N.**, Mehta, R., Winter, S. R., Rice, S., *Anania, E., *Smith, C., & *Ragbir, N. (under review). Factors predicting patients' willingness to use robotic dental services. *International Journal of Social Robotics*.
- Milner, M. N.**, Winter, S. R., Mehta, R., Rice, S., *Pierce, M., *Anania, E., *Candelaria-Oquendo, K., *Garcia, D., & *Walters, N. (under review). Patient perceptions of interactive mobile health care apps: A predictive model. *International Journal of Healthcare Technology and Management*.
- Winter, S. R., Rice, S., *Anania, E., Mehta, R., *Baugh, B., & **Milner, M. N.** (under review). Determining the predictors for ease of sleep while on aircraft: Regression and qualitative analyses. *Journal of Air Transport Management*.
- Rice, S., Winter, S., Mehta, R., Tamilselvan, G., *Anania, E., & **Milner, M. N.** (under review). Identifying the factors that predict a consumer's willingness to ride in various types of driverless vehicles. *Technology in Society*.

- *Anania, E., Rice, S., Winter, S., *Baugh, B., **Milner, M. N.**, *Goldstein, A. (under review). Do ethnicity, gender and vehicle type affect ease of sleep during transportation? *Travel Behavior and Society*.
- Winter, S. R., Rice, S., **Milner, M. N.**, *Anania, E., *Walters, N., *Marte, D., *Aidonidis, M., & *Baugh, B. (under review). How low will they go? Pilots' stated personal weather minimums versus their actual behavior. *Journal of Safety Research*.
- Winter, S. R., Rice, S., *Capps, J., *Trombley, J., & **Milner, M. N.** (under review). Weather Landings: Will pilots deviate from their personal weather minimums? *Safety Science*.
- Rice, S., Winter, S. R., *Capps, J., *Trombley, J., Robbins, J. M., & **Milner, M. N.** (under review). Creation of two valid scales: Willingness to fly in an aircraft and willingness to pilot an aircraft. *Journal of Air Transport Management*.

Journal Publications

2019

- Milner, M. N.**, Rice, S., Winter, S. R., & *Anania, E. C. (2019). The effect of political affiliation on support for police drone monitoring in the United States. *Journal of Unmanned Vehicle Systems*, 1-16. doi: 10.1139/juvs-2018-0026
- Milner, M. N.**, *Bush, D. Z., *Anania, E. C., *Ito, T., *Marte, D. A., Rice, S., & Winter, S. R. (2019). Cultural and political attitudes towards paying to support airport sustainability projects. *International Journal of Sustainable Aviation*, 5(1), 54-69. doi: 10.1504/IJSA.2019.10021484
- Winter, S. R., **Milner, M. N.**, *Anania, E. C., Rice, S., *Walters, N. W., *Garcia, D., & *Baugh, B. S. (2019). Examining the perception and effectiveness of a system awareness briefing during cruise flight. *Collegiate Aviation Review International*, 37(1), 1-18. doi: 10.22488/okstate.19.100201
- Rice, S., Winter, S. R., Mehta, R., Keebler, J. R., *Baugh, B. S., *Anania, E. C., & **Milner, M. N.** (2019). Does length of ride, gender, or nationality affect willingness to ride in a driverless ambulance. *Journal of Unmanned Vehicle Systems*, 7, 39-55. doi: 10.1139/juvs-2017-0027
- *Anania, E. C., Rice, S., *Pierce, M., Winter, S. R., *Capps, J., *Walters, N. & **Milner, M. N.** (2019). Public support for police drone missions depends on political affiliation and neighborhood demographics. *Technology in Society*, 57, 95-103. doi: 10.1016/j.techsoc.2018.12.007

2018

- *Marte, D. A., *Anania, E. C., Rice, S., Mehta, R., **Milner, M. N.**, Winter, S. R., *Walters, N., *Capps, J., & *Ragbir, N. (2018). What type of person supports 24/7 police drones over neighborhoods? A regression analysis. *Journal of Unmanned Aerial Systems*, 4(1), 61-70.
- *Anania, E. C., Rice, S., *Walters, N., *Pierce, M., Winter, S. R., & **Milner, M. N.** (2018). The effects of positive and negative information on consumers' willingness to ride in a driverless vehicle. *Transport Policy*, 72, 218-224. Exhibited in Elsevier Special Article Collection on the Human Side of Autonomous Driving. doi: 10.1016/j.tranpol.2018.04.002

- Winter, S. R., Rice, S., Mehta, R., *Walters, N. W., *Pierce, M. B., *Anania, E. C., **Milner, M. N.**, & Rao, N. (2018). Do Americans differ in their willingness to ride in a driverless bus? *Journal of Unmanned Vehicle Systems*, 6(4), 267-278. doi: 10.1139/juvs-2018-0020
- *Walters, N. W., Rice, S., Winter, S. R., *Baugh, B. S., *Ragbir, N. K., *Anania, E. C., *Capps, J., & **Milner, M. N.** (2018). Consumer willingness to pay for new airports that use renewable resources. *The International Journal of Sustainable Aviation*, 4(2), 79-98. doi: 10.1504/IJSA.2018.10015448
- Winter, S. R., **Milner, M. N.**, Rice, S., *Bush, D., *Marte, D. A., *Adkins, E., *Roccasecca, A., Rosser, T. G., & Tamilselvan, G. (2018). Pilot performance comparison between electronic and paper instrument approach charts. *Safety Science*, 103, 280-286. doi: 10.1016/j.ssci.2017.12.016
- *Anania, E. C., Rice, S., Winter, S. R., **Milner, M. N.**, *Walters, N. W., & *Pierce, M. (2018). Why people are not willing to let their children ride on driverless school buses: A gender and nationality comparison. *Social Sciences*, 7(3). doi: 10.3390/socsci7030034
- Rice, S., Tamilselvan, G., Winter, S. R., **Milner, M. N.**, *Anania, E. C., Sperlak, L., *Marte, D. A. (2018). Public perception of UAS privacy concerns: A gender comparison. *Journal of Unmanned Vehicle Systems*, 6(1), 1-17. doi: 10.1139/juvs-2017-0011

2017

- Winter, S. R., Rice, S., **Milner, M. N.**, Coyne, W., Lauth, M., & Rinkinen, C. (2017). A conceptual model for a Universal Severity of Emergency Report (USER): An example in aviation. *International Journal of Aviation, Aeronautics, and Aerospace*, 4(3). doi: 10.15394/ijaaa.2017.1173
- Rains, T., Winter, S. R., Rice, S., **Milner, M. N.**, Bledsaw, Z., *Anania, E. (2017). Biofuel and commercial aviation: Will consumers pay more for it? *International Journal of Sustainable Aviation*, 3(3). doi: 10.1504/IJSA.2017.086846
- Rice, S., Winter, S. R., Doherty, S., & **Milner, M. N.** (2017). Advantages and disadvantages of using internet-based survey methods in aviation-related research. *Journal of Aviation Technology and Engineering*, 7(1), 58-56. doi: 10.7771/2159-6670.1160
- Rice, S., Winter, S. R., Tamilselvan, G., & **Milner, M. N.** (2017). Attitudes toward controlled rest in position (CRIP): A gender comparison between pilots and non-pilots. *International Journal of Aviation, Aeronautics, and Aerospace*, 4(3), 1-33. doi: 10.15394/ijaaa.2017.1181
- Winter, S. R., Rice, S., Rains, T., **Milner, M. N.**, & Mehta, R. (2017). A longitudinal study on the alteration of consumer perceptions and the use of pilot medication. *Journal of Air Transport Management*, 59, 100-106. doi: 10.1016/j.jairtraman.2016.12.004

Conference Papers

2019

- Milner, M. N.**, Brill, J. C., & Rice, S. (accepted). *Impact of automation on general aviation rotorcraft mishaps: A human factors analysis*. Proceedings of the Institute of Electrical and Electronics Engineers (IEEE) Aerospace Conference, Big Sky, MT.

- Milner, M. N.**, Rice, S., Winter, S. R., Trombley, J., & Rice, C. (2019, October). *Hijacking Mitigation Techniques: Should Pilots Act?* Poster presented at the 2019 Technology, Mind and Society Conference, Washington D.C, USA.
- Milner, M. N.**, Winter, S. R., Rice, S., *Rice, C., *Ragbir, N. K., *Baugh, B., *Capps, J., & *Lim, B. (2019, October). *Identifying assistive factors for ensuring safe interactions between pedestrians and autonomous vehicles*. Poster presented at the 63rd International Annual Meeting of the Human Factors and Ergonomics Society. Seattle, WA.
- Milner, M.N.**, Winter, S. R., Rice, S., Rice, C., *Ragbir, N., & *Baugh, B. (2019, July). *Identifying influencing factors affecting pedestrians' willingness to interact with driverless vehicles*. Paper presented at the 2019 Applied Human Factors and Ergonomics Conference, Washington D.C, USA.
- Milner, M.N.**, Tamilselvan, G., Rice, S., & Winter, S. R. (2019, May). *Why are consumers less willing to fly in autonomous aircraft: A qualitative investigation*. Poster presented at the 2019 International Symposium of Aviation Psychology, Dayton, OH.
- Milner, M. N.**, Rice, S., *Capps, J., Winter, S. R., & *Lew, V. (2019, March). *"But I didn't know!" How to get patients to read drug pamphlets*. Poster accepted to the 2019 International Symposium on Human Factors and Ergonomics in Health Care, Chicago, IL.
- Milner, M. N.**, *Walters, N. W., Rice, S., Winter, S. R., *Ragbir, N. K., Patel, S., & *Rice, C. (2019, January). *Factors Predicting Pedestrians' Willingness to Cross in front an Autonomous Vehicle*. Poster presented at the 2019 Human Factors and Applied Psychology student conference, Orlando FL. **Best Presentation Award**

2018

- *Baugh, B. S., **Milner, M. N.**, *Anania, E. C., Tamilselvan, G., Rice, S., & Winter, S. R. (2018, July). *To crash or not to crash? An analysis of outcome bias for novice and expert pilots*. Poster presentation at the 9th International Conference on Applied Human Factors and Ergonomics, Orlando, Florida.
- Milner, M. N.**, *Anania, E., *Walters, N. W., & Rice, S. (2018, March). *Patient perception of interactive mobile health care apps: A regression analysis*. 2018 International Symposium on Human Factors and Ergonomics in Health Care. Boston, Massachusetts.
- *Anania, E., **Milner, M. N.**, *Ragbir, N., *Pierce, M., *Walters, N. W. & Rice, S. (2018, March). *Factors affecting consumers' acceptance of robotic dentists*. 2018 International Symposium on Human Factors and Ergonomics in Health Care. Boston, Massachusetts.
- *Woolridge, A. R., *Nguyen, T., Valdez, R., Montague, E., **Milner, M. N.**, Domeich, M. C., & Roscoe, R. (2018, October). Human Factors and Ergonomics in Diversity, Inclusion, and Social Justice Research. In A. R. Woolridge and T. Nguyen (Chair), *Human Factors and Ergonomics Society Diversity Committee*. Symposium conducted at the Human Factors and Ergonomics Society International Conference, Philadelphia, PA.
- Milner, M. N.**, Rice, S., Winter, S., Tamilselvan, G., *Marte, D., & *Anania, E. (2018, July). *Unmanned Aerial Systems Privacy Concerns*. Poster presented at the 9th International Conference on Applied Human Factors and Ergonomics, Orlando, FL.

*Anania, E., *Walters, N., *Pierce, M., Rice, S., Winter, S., & **Milner, M. N.** (2018, July). *Effects of Different Information Amounts and Types of Willingness to Ride in a Driverless Vehicle*. Poster presented at the 9th International Conference on Applied Human Factors and Ergonomics, Orlando, FL

2017

Milner, M. N., Rice, S., Winter, S. R., *Anania, E., *Walters, N. W., & *Pierce, M. (2017, May). *Are people willing to let their children ride on driverless school buses?* Poster presented at the 13th International Conference on Technology, Knowledge, & Society, Toronto, Canada.

*Walters, N., Winter, S. R., Rice, S., **Milner, M. N.**, *Pierce, M., *Anania, E., & *Rao, N. (2017). *American consumers are not yet willing to ride in driverless buses*. 2017 International Conference on Technology, Knowledge, & Society, Toronto, Canada.

Rice, S., Winter, S. R., Keebler, J., & **Milner, M. N.**, (2017, July). *Proposing a willingness to interact and collaborate with humanoid robots (WICHR) model*. Poster presented at the 8th International Conference on Applied Human Factors and Ergonomics, Los Angeles, CA.

*Walters, N. W., **Milner, M. N.**, *Marte, D. A., *Adkins, E. A., *Aidonidis, M., *Pierce, M. B., Pasmore, A. K., *Roccasacca, A., Rice, S., & Winter, S. R. (2017, August). *A preliminary comparison of pilot's weather minimums and actual decision-making*. Presentation at the 2017 National Training Aircraft Symposium, Daytona Beach, Florida.

Milner, M. N., *Bush, D., *Marte, D., Rice, S., Winter, S., *Adkins, E., *Roccasacca, A., & *Tamilselvan, G. (2017, October). *The effect of chart type on pilots' response time*. Paper presented at the 61st International Conference on Human Factors and Ergonomics Society, Austin, TX.

*Marte, D., *Walters, N., **Milner, M. N.**, *Anania, E., Rice, S., & Winter, S. R. (2017). *Privacy concerns about UAS Missions*. 14th International Conference on Technology, Knowledge, and Society, Manhattan, New York.

*denotes student author

MEDIA ATTENTION

Forbes

<https://www.forbes.com/sites/stephenrice1/2019/02/04/eyes-in-the-sky-the-public-has-privacy-concerns-about-drones/#3d3a44906984>

Philly Voice

<https://www.phillyvoice.com/medical-robots-surgery-health-care-hospital-near-you/>

Fast Company

<https://www.fastcompany.com/90345453/robots-are-coming-to-a-hospital-near-you>

Healthline

<https://www.healthline.com/health-news/are-you-ok-with-a-robot-dentist>

The Washington Times

<https://www.washingtontimes.com/news/2018/mar/30/fear-factor-or-not-the-robotic-dentists-are-coming/>

Dental Tribune

<https://www.dental-tribune.com/news/survey-explores-public-perceptions-of-robot-performed-dental-procedures/>

Forbes

<https://www.forbes.com/sites/stephenrice1/2019/06/05/the-public-supports-sustainable-aviation-and-they-are-willing-pay-for-it/#60bf0d3f7282>

Thomson Reuters Foundation

<http://www.thisisplace.org/i/?id=a8ef024d-d5b4-4c5c-a7cd-f80d37b309dd>

RESEARCH EXPERIENCE

Embry-Riddle Aeronautical University | Dept. of Human Factors 2016 - Present
Senior Lab Manager, Systems and Human Applied Research Performance

- Maintained laboratory equipment performance by establishing quality standards and performance log, developing user procedures, and ensuring user compliance through initial and recurring training protocols
- Facilitated effective communication across interdepartmental offices thus ensuring project transparency, efficient workload/research progress, and adherence to regulatory standards, budgets, and schedules for participants and laboratory staff
- Collected, analyzed, and interpreted data, and then summarized and reported the findings for publication in relevant journals and/or conferences

Air Force Research Lab | Oak Ridge Institute for Science and Education 2018 - Present
Graduate Research Assistant, Human Insight and Trust Team

- Identified and recorded rotorcraft accidents due to misuse of automation, automation failure, and/or lack of appropriate automation within the private sector
- Navigated various databases to collate information and maintained an active report of appropriate rotorcraft accidents
- Delivered bi-weekly project updates to principle investigator and provided informal presentations regarding project status

TEACHING EXPERIENCE.

Embry-Riddle Aeronautical University, Daytona Beach Fall 2018 – Spring 2019
Instructor of Record, Department of Human Factors

- Introduction to Psychology – an undergraduate course averaging 60 students per semester, covering basic topics, such as Research Methods, Sensation and Perception, Memory and Cognition, etc.
- Developed quizzes, exams, and course material

- Revised the syllabus to meet accreditation standards
- Provided students with project-based learning opportunities

Embry-Riddle Aeronautical University, Daytona Beach

Fall 2019 - Present

Teaching Assistant, Department of Human Factors

- Introduction to Psychology – an undergraduate course averaging 120 students per semester, covering basic topics, such as Research Methods, Sensation and Perception, Memory and Cognition, etc.
- Assisted professor with presenting lectures, developing exams, and grading course material
- Maintained appropriate office hours and encouraged students through professional, academic guidance and mentorship

GRANTS

Submitted Grants I Helped Prepare 2018

Naval Air Warfare Center Training Systems Division
Assessment of Ready Relevant Learning (RRL) Automated Tools for Benefit, Suitability, and Fleet Adoption - \$133,994

Naval Air Warfare Center Training Systems Division 2018
Evaluation of User Interactions and Perceptions Regarding the Integration of Automation in Training Systems - \$133,185

Advisor Awarded Grants I Worked On 2019

Center for Advanced Transportation Mobility
Assessing Pedestrians' Perception and Willingness to Interact with Autonomous Vehicles - \$49,982

Federal Aviation Administration 2018
Enhanced AT-CPC Training (Researched and developed recurrent and skill enhancement training for Certified Professional Controllers) - \$ 99,195

PROFESSIONAL AFFILIATIONS

Human Factors and Ergonomics Society – National Chapter 2017 - Present
 Student Member

Human Factors and Ergonomics Society – University Chapter 2016 - Present
 Vice President and Student Member

Psi Chi National Honor Society 2012 - Present

Hexagon UX – Daytona Beach Chapter Spring 2019 – Present
 Chapter Lead and Student Member

RELEVANT SKILLS

Data Analysis: SPSS, AMOS, R

Applications: G1000 Elite Flight Simulator, Tobii Studio version 3.2

Software: Balsamiq Wireframe, Google Forms, Survey Gizmo, UserTesting, Morae