JING FENG

Professor and University Faculty Scholar, Department of Psychology, North Carolina State University
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Education

Ph.D. in Cognitive Psychology, University of Toronto, Toronto, Ontario, Canada	2011
M.A. in Cognitive Psychology, University of Toronto, Toronto, Ontario, Canada	2006
B.Sc. in Applied Psychology, Zhejiang University, Hangzhou, Zhejiang, China	2005

Academic Appointments

Professor, Department of Psychology, NC State University	2024 –
Affiliate Faculty, Closed Loop Engineering for Advanced Rehabilitation (CLEAR), NC State/UNC Joint Department of Biomedical Engineering	2023 –
Adjunct Faculty, Department of Industrial and Systems Engineering, NC State University	2018 –
Affiliate Faculty, Institute of Transportation Research and Education, NC State University	2017 –
Associate Professor, Department of Psychology, NC State University	2019 – 2024
Assistant Professor, Department of Psychology, NC State University	2013 – 2019
Post-Doctoral Fellow, Department of Mechanical and Industrial Engineering, University of Toronto	2012 – 2013
Post-Doctoral Fellow, Rotman Research Institute, Baycrest Centre for Geriatric Care	2011 – 2012

Research Interests

Attention, cognitive aging, cognitive training and intervention, human factors in driving and display design

With a focus on *theory and practice of attention*, four specific areas of my work are:

- Attention and safety implications in drivers' interaction with automated vehicle technologies
- Attention, hazard detection, distraction, driver engagement, remote operation
- Cognitive aging in attention, driving safety, and brain plasticity
- Information displays to facilitate attentional processing in driving and human-computer interaction

Grants

Research Funding ($7.7M+ in total, 990K+ as PI)

"State DOT Policy and Regulatory Approaches to Robotaxis Teleoperations (Phase I)" (08/2025-12/2025), Jing Feng (PI), Danjue Chen, George List. Funding agency: North Carolina Department of Transportation ($28,491).

"A Platform for Social Media Tracking, Evaluation, Engagement, and Response for ADAS Technologies (STEER-ADAS)" (10/2025-09/2026), Danjue Chen, Jing Feng (Co-PI). Funding agency: North Carolina Department of Transportation ($99,977).

"Review the State-of-the-Art Studies on the Public's Perception of Advanced Driving Assist Systems and Assess the Actual Performance" (01/2025-05/2025), Danjue Chen, George List, Jing Feng (Co-PI), Man-Ki Yoon. Funding agency: North Carolina Department of Transportation ($28,491).

"RITEL: Interactively Visualize Force for Physics Education via Affordable Augmented Reality and Visuo-haptic Experiences" (08/2024-07/2027), Xu Xu, Karen Chen, Jing Feng (Co-PI). Funding agency: National Science Foundation ($900,000).

"Toward Restoration of Normative Postural Control and Stability using Neural Control of Powered Prosthetic Ankles" (10/2023-09/2028), He Huang, Jing Feng (Co-I), Jonathan Stallings. Funding agency: National Institute of Health ($3.1M).

"Teleoperation of Automated Vehicles: Human Factors and Logistics Considerations" (02/2022-06/2023), Jing Feng (PI), Yunan Liu, Christopher Cunningham. Funding agency: Research and Innovation Seed Funding (RISF), North Carolina State University ($25,000).

"Active Aging: Using 3D Virtual Fitting Room Stimuli to Enhance Older Adults' Spatial Visualization Ability" (12/2021-11/2022), Chanmi Hwang, Jing Feng (Co-PI). Funding agency: Non-laboratory Scholarship/Research Program (NSRP), North Carolina State University ($13,350).

"NRI: FND: A Novel Intervention Method to Promote Workers' Safety Awareness and Mental Health During Human-Robot Collaboration" (08/2020-07/2023), Xu Xu, Yunan Liu, Karen Chen, Tianfu Wu, Jing Feng (Co-PI). Funding agency: National Science Foundation ($749,244).

"Development and Validation of a Driver's Automated and Connected Vehicle Technology Profile Inventory (Auto-TPI)" (07/2020-06/2022), Jing Feng (PI). Funding agency: Faculty Research and Development Grant, North Carolina State University ($4,000).

"Integrating Human Wearers Perception and Cognition into Prosthesis Control Policy" (10/2019-09/2023), He Huang, Jing Feng (Co-PI). Funding agency: National Science Foundation ($787,711).

"DO9 Task Order – Anticipatory Thinking" (01/2019-12/2019), Jing Feng (PI). Funding agency: Laboratory for Analytic Sciences ($93,039).

"Natural Light and Health in Urban Environments" (01/2019-01/2020), Wayne Place, Jianxin Hu, Steve Terry, Jing Feng (Co-PI), Traci Rider. Funding agency: SOM Foundation ($40,240).

"Leverage Augmented Reality for Safety Education in the Logistics Industry" (09/2018-08/2022), Xu Xu, Karen Chen, Jing Feng (Co-PI), Tianfu Wu. Funding agency: National Science Foundation ($749,542).

"Address the Challenges of Older Drivers in North Carolina using Modern Technologies" (continuing grant, 10/2018-09/2019), Jing Feng (PI). Funding agency: North Carolina Department of Transportation / National Highway Transportation Safety Administration ($149,886).

"Designing In-Vehicle Message Delivery with Manual and Highly Automated Driving" (07/2017-12/2019), Jing Feng (PI), David Kaber, Christopher Cunningham. Funding agency: North Carolina Department of Transportation ($199,950).

"Enhancing Autonomous Vehicle Traffic Safety through Pedestrian Detection, Classification and Communication" (08/2018-07/2020), Mathew Palmer, Sarah O'Brien, Seth Hollar, Jing Feng (Co-PI), Abdollah Homaifar, Ali Karimoddini. Funding agency: North Carolina Department of Transportation ($199,396).

"Tracking the Body, Tracking the Mind: Inferring Drivers' Mental States from In-Car Body Motion" (07/2018-06/2019), Xu Xu, Jing Feng (Co-PI), Karen Chen. Funding agency: NC State University Research and Innovation Seed Funding (RISF) Program ($31,692).

"Assess and Optimize Advanced Building Glazing Technologies for Lighting, Energy and Health Outcomes" (07/2018-01/2020), Wayne Place, Jianxin Hu, Steve Terry, Jing Feng (Co-PI), Traci Rider. Funding agency: NC State University Research and Innovation Seed Funding (RISF) Program ($35,240).

"Address the Challenges of Older Drivers in North Carolina using Modern Technologies" (continuing grant, 10/2017-09/2018), Jing Feng (PI), Arthur Goodwin, Robert Foss. Funding agency: North Carolina Department of Transportation / National Highway Transportation Safety Administration ($120,909).

"DO7 Task Order – Infrastructure, Cyber Security" (01/2017-12/2018), Jing Feng (PI). Funding agency: Laboratory for Analytic Sciences ($220,549).

"Address the Challenges of Older Drivers in North Carolina using Modern Technologies" (10/2016-09/2017), Jing Feng (PI), Arthur Goodwin, Robert Foss. Funding agency: North Carolina Department of Transportation / National Highway Transportation Safety Administration ($91,729).

"An Advanced NC State Driving Simulator" (07/2015-06/2017), David Kaber, Chris Cunningham, Jing Feng (Co-PI), Nagui Rouphail. Funding agency: North Carolina State University ($89,000).

"Optimizing User Learning: The Road to Becoming SAS Savvy" (10/2014-08/2015), Jing Feng (PI), Michael Geden. Funding agency: SAS. ($23,959).

"Fitness-to-drive: Development and Validation of a Measurement Tool" (01/2014-09/2014), Jing Feng (PI). Funding agency: CHASS Scholarship and Research Award – College of Humanities and Social Sciences, North Carolina State University ($4,000).

Global Engagement and Partnership Development

North Carolina International Travel Assistance Fund (06/2016-07/2017), Jing Feng. Funding agency: University International Affairs, College of Humanities and Social Sciences, North Carolina State University ($2,000).

Honors, Awards and Scholarships

Fellow, American Psychological Association, Division 21 (2023)
Outstanding Undergraduate Research Mentor Award, College of Humanities and Social Sciences, North Carolina State University (2023)
Earl Alluisi Award for Early Career Achievement, APA Division 21 (2020)
University Faculty Scholar, North Carolina State University (2018)
Outstanding Junior Faculty Award, College of Humanities and Social Sciences, North Carolina State University (2017)
Nominated for Stephanie Binder Young Professional Award of the Human Factors and Ergonomics Society Surface Transportation Technical Group (2016)
Nominated for the NC State Graduate School Outstanding Graduate Faculty Mentor Award (2016)
University of Toronto Fellowship, University of Toronto (2005-2011)
Frederic Hudd Scholarship, Massey College, University of Toronto (2006-2008)
Massey College Academic Travel Grant, Massey College, University of Toronto (2006-2008)
The Faculty of Art and Science's Graduate Student Conference Travel Grant, University of Toronto (2007-2008)
Outstanding Student Fellowship, Zhejiang University (2003-2004)
Excellent student Award, Zhejiang University (2003-2004)
Excellent Bachelor Thesis Award, Zhejiang University (2003-2004)
Excellent Achievement Scholarship, Zhejiang University (2001-2002)

Publications

* indicates student co-author

Peer-reviewed journal articles (39 in total, 23 with students)

1. Bai, X.*, & **Feng, J.** (2025). Awaking the disengaged: Can driving-related prompts engage drivers in partial automation? *Human Factors, 67*(7), 731-752. *Editor's Pick*. https://doi.org/10.1177/00187208251314248

2. Bai, X.*, Yuan, J., Liu, M., Huang, H., & **Feng, J.** (2024). Human factors considerations of interaction between wearers and intelligent lower-limb prostheses: A prospective discussion. *Journal of NeuroEngineering and Rehabilitation, 21:187*, 1-15.
3. Hwang, C., Jin, B., Song, S., & **Feng, J.** (2024). Factors influencing older adults' intention to use virtual fitting room during the COVID-19 pandemic. *Journal of Fashion Marketing and Management*, *28*(3), 444-459.
4. Hwang, C., & **Feng, J.** (2023). Using 3D virtual fitting room stimuli to enhance older adults' spatial visualization skill. *Journal of Fashion Marketing and Management, 52,* 5-18.
5. Alili, A.*, Nalam, V., Li, M., Liu, M., Si, J., **Feng, J.**, & Huang, H. (2023). A Novel Framework to Facilitate User Preferred Tuning for a Robotic Knee Prosthesis. *IEEE Transactions on Neural Systems & Rehabilitation Engineering, 31*, 895-903.
6. **Feng, J.**, Deng, Y.*, Cauffman, S.*, Lau, M.*, Johnson, E., Cunningham, C., & Kaber, D. (2023). Driver Visual Behavior and Hazard Response with In-Vehicle and On-Road Deliveries of Service Logo Signs. *International Journal of Engineering Ergonomics, 93*, 103386.
7. Kim, B., Joines, S., & **Feng, J.** (2023). Technology-Driven Design Process: Teaching and Mentoring Technology-Driven Design Process in Industrial Design Education. *International Journal of Technology and Design Education, 33*, 521-555.
8. Cauffman, S.*, Deng, Y.*, Lau, M.*, Johnson, E., **Feng, J.**, Kaber, D., & Cunningham, C. (2022). Research and Design Considerations for Presentation of Non-Safety Related Information via In-Vehicle Displays during Automated Driving. *Applied Sciences, 12*(20), 10538.
9. Yuan, J., Bai, X.*, Driscoll, B., Liu, M., Huang, H., & **Feng, J.** (2022). Standing and walking attention visual field (SWAVF) task: A new method to assess visuospatial attention during walking. *Applied Ergonomics, 104*, 103804.
10. Choi, H., **Feng, J.**, & Grühn, D. (2022). A two-factor approach distinguishing the occurrence and frequency of self-reported attentional failures during driving to predict crash risks among older drivers. *Journal of Gerontology: Psychological Sciences, 77*(10):1759-1768. *Editor's Choice Article*.
11. 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, 22*(6), 443-448.
12. Yuan, J.*, Cline, E.*, Liu, M., Huang, H., & **Feng, J.** (2021). Cognitive measures during walking with and without lower-limb prosthesis: protocol for a scoping review. *BMJ Open*, 0:e039975, 1-6.
13. Hancock, P. A., Kajaks, T, Caird, J. K., Chignell, M. H., Mizobuchi, S., Burns, P. C., **Feng, J.**, Fernie, G. R., Lavallière, M., Noy, I. Y., Redelmeier, D. A., Vrkljan, B. H. (2020). Challenges to human drivers in increasingly automated vehicles. *Human Factors, 62*(2), 310-328.
14. Geden, M.*, Smith, A., Campbell, J., Spain, R., Amos-Binks, A., Mott, B., **Feng, J.**, & Lester, J. (2019). Construction and validation of an anticipatory thinking assessment. *Frontiers in Psychology*, *10*, 2749.
15. Sall, R.*, & **Feng, J.** (2019). Dual-Target Hazard Perception: Correctly Identifying One Hazard Hinders Driver's Capacity to Find a Second. *Accident, Analysis and Prevention, 131,* 213-224.
16. **Feng, J.**, Sanchez, J.*, Sall, R.*, Lyons, S., & Nam, C. (2019). Emotion facilitates human-human reliance when using automation in high risk situations. *Military Psychology, 31(4),* 292-305.
17. Choi, H.*, Kasko, J.*, & **Feng, J.** (2019). Attention assessment technology for monitoring and intervention for older drivers' crash risks in various hazardous situations. *The Gerontologist, 59*(1), 112-123.
18. Geden, M.*, Staicu, A., & **Feng, J.** (2018). Reduced target facilitation and increased distractor suppression during mind wandering. *Experimental Psychology, 65*(6), 345-352.
19. Kim, B.*, Joines, S., Elinchum, R., & **Feng, J.** (2018). Usability study to improve interaction design for drivers in car-sharing system. *Journal of Usability Studies, 13*(4), 220-247.
20. Namian, M.*, Albert, A., & **Feng, J.** (2018). Effects of distraction on hazard recognition and safety risk perception. *Journal of Construction Engineering and Management, 144*(4): 04018008.
21. Zhu, M., Rudisill, T. M., Rauscher, K. J., Davidov, D. M., & **Feng, J.** (2018). Risk perception of cellphone use while driving: Results from a delphi survey. *International Journal of Environmental Research and Public Health, 15*(6), 1074.

22. **Feng, J.**, Choi, H.*, Craik, F. I. M., Levine, B., Moreno, S., Naglie, G., & Zhu, M. (2018). Adaptive response criterion in road hazard detection among older drivers. *Traffic Injury Prevention, 19*(2), 141-146.
23. Geden, M.*, Staicu, A., & **Feng, J.** (2018). The impact of perceptual load and time on mind wandering while driving. *Transportation Research Part F: Traffic Psychology and Behaviour, 57*, 75-83.
24. Choi, H.*, Geden, M.*, & **Feng, J.** (2017). Mind wanders more in images when performing a visual concurrent task. *PLOS ONE, 12*(2):e0189667.
25. Shen, S., Koech, W., **Feng, J.**, & Zhu, M. (2017). Older adults' travel patterns in the United States in 2015. *BMJ Open, 7(8):e015780.*
26. **Feng, J.**, & Spence, I. (2017). The effects of spatial endogenous pre-cueing across eccentricities. *Frontiers in Psychology, 8, 888.*
27. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., Naglie, G., & Choi, H.* (2017). Differential age-related changes in attention across an extended visual field. *European Journal of Ageing*, *14*(2), 167-177.
28. Clark, H.*, & **Feng, J.** (2017). Age differences in the takeover of vehicle control and engagement in non-driving-related activities in simulated semi-autonomous driving. *Accident, Analysis & Prevention*, 106, 468-479.
29. Jacob, T.*, Snyder, W., **Feng, J.**, & Choi, H.* (2016). A neural model for straight line detection in the human visual cortex. *Neurocomputing*, *199*, 185-196.
30. **Feng, J.**, Marulanda, S., & Donmez, B. (2014). Susceptibility to driver distraction questionnaire: development and relation to relevant self-reported measures. *Transportation Research Record: Journal of the Transportation Research Board, 2434*, 26-34.
31. **Feng, J.**, & Spence, I. (2014). Upper visual field advantage in localizing a target among distractors. *i-Perception, 5*(2), 97-100.
32. Spence, I., Jia, A., **Feng, J.**, Elserafi, J., & Zhao, Y. (2013). How speech modifies visual attention. *Applied Cognitive Psychology*, *27*(5), 633-643.
33. **Feng, J.**, & Spence, I. (2013). A mixture distribution of spatial attention. *Experimental Psychology, 60*(3), 149-156.
34. **Feng, J.**, Pratt, J., & Spence, I. (2012). Attention and visuospatial working memory share the same processing resources. *Frontiers in Psychology, 3*, 103.
35. Wu, S., Cheng, C. K., **Feng, J.**, D'Angelo, L., Alain, C., & Spence, I. (2012). Playing a first-person shooter video game induces neuroplastic change. *Journal of Cognitive Neuroscience, 24*, 1286-1293.
36. Spence, I., & **Feng, J.** (2010). Video games and spatial cognition. *Review of General Psychology, 14*, 92-104.
37. Spence, I., Yu, J., **Feng, J.**, & Marshman, J. (2009). Women match men when learning a spatial skill. *Journal of Experimental Psychology: Learning, Memory and Cognition, 35*, 1097-1103.
38. Spence, I., DeYoung, C. G., & **Feng, J.** (2009). The technology profile inventory: construction, validation, and application. *Computers in Human Behavior, 25*, 458-465.
39. **Feng, J.**, Spence, I., & Pratt, J. (2007). Playing an action video game reduces gender difference in spatial cognition. *Psychological Science, 18*, 850-855.

Peer-reviewed conference proceedings and papers (44 in total, 36 with students)

1. Cui, L.*, Bai, X.*, & **Feng, J.** (2025). The interplay between driver dynamic trust and their self-confidence in monitoring automation. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 69*(1), 786-789.
2. Bai, X.*, Tacca, J., Liu, M., Buxton, E., Lewek, M., **Feng, J.**, & Huang, H. (2025). Evaluating cognitive workload with the auditory stroop task while using a lower limb prosthesis: A feasibility study. *Proceedings of the 2025 International Conference on Rehabilitation Robotics (ICORR)*.
3. Bai, X.*, & **Feng, J.** (2024). Capturing the mind: Non-driving-related tasks as a window into cognitive engagement in automated driving. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 68*(1), 1362-1364.
4. Shoffner, L.*, & **Feng, J.** (2024). Simultaneous remote monitoring of multiple automated vehicles. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 68*(1), 1752-1755.

5. Yuan, J., Bai, X.*, Alilis, A.*, Liu, M., Huang, H., & **Feng, J.** (2023). Finding a Natural Fit: A Thematic Analysis of Amputees' Prosthesis Setting Preferences during User-Guided Auto-Tuning. *Proceedings of the 2023 HFES 67th International Annual Mee*ting, DOI: 10.1177/21695067231216121.
6. Bai, X.*, & **Feng, J.** (2023). Unlocking Safer Driving: How Answering Questions Helps Takeovers in Partially Automated Driving. *Proceedings of the 2023 HFES 67th International Annual Meeting*, DOI: 10.1177/2169506723119220.
7. Yuan, J., Bai, X.*, Alilis, A.*, Liu, M., Huang, H., & **Feng, J.** (2022). Understanding the Preferences for Lower-Limb Prosthesis: A Think-Aloud Study during User-Guided Auto-Tuning. *Proceedings of the 2022 HFES 66th International Annual Meeting, 66*(1), 2159-2163.
8. Chu, Y.*, Deveshwar, H.*, Hollar, S., & **Feng, J.** (2022). What Does That Car Mean? The Influence of Vehicle Motion and Symbolic Patterns of LED Signals on Pedestrians' Interpretation of a Vehicle's Intent. *Proceedings of the 2022 HFES 66th International Annual Meeting, 66*(1), 977-981.
9. Morrison, D.*, Cui, L.*, & **Feng, J.** (2022). An Online Method to Study Remote Operation of Automated Vehicles. *Proceedings of the 2022 HFES 66th International Annual Meeting, 66*(1), 923-927.
10. Wilkinson, M.*, Brantley, S.*, & **Feng, J.** (2021). A mini review of presence and immersion in virtual reality. *Proceedings of the 2021 HFES 65th International Annual Meeting, 65*(1), 1099-1103.
11. Brantley, S.*, Wilkinson, M.*, & **Feng, J.** (2021). Beat the bots: exploring the effects of placebo/nocebo manipulation on performance during video gameplay. *Proceedings of the 2021 HFES 65th International Annual Meeting, 65*(1), 923-927.
12. Cauffman, S. J.*, Deng, Y.*, Liu, Y., Cunningham, C., Kaber, D., & **Feng, J.** (2020). Driver logo sign detection and hazard responses during partially automated driving. *Proceedings of the 2020 HFES 64th International Annual Meeting, 64*(1), 1960-1964.
13. Wagner, R. B.*, Geden, M.*, Forster, S., & **Feng, J.** (2020). Driver visual processing of relevant and irrelevant information during mind wandering. *Proceedings of the 2020 HFES 64th International Annual Meeting, 64*(1), 1991-1995.
14. Deng, Y.*, Cauffman, S. J.*, Lau, M. Y., Johnson, E., Avr, A., Cunningham, C., Kaber, D., & **Feng, J.** (2020). Driver hazard response when processing on-road and In-vehicle messaging of non-safety-related information. In *The Proceedings of the 1st IEEE International Conference on Human Machine Systems*. doi: 10.1109/ICHMS49158.2020.9209411
15. Geden, M., **Feng, J.**, Spain, R., Smith, A., Wagner, B.*, & Lester, J. (2019). Toward the application of anticipatory thinking in support of risk identification. In *The Proceeding of the AAAI (Association of the Advancement of Artificial Intelligence) Symposium on Cognitive Systems for Anticipatory Thinking*, November 2019, Washington, D.C. https://ceur-ws.org/Vol-2558/short8.pdf
16. Deng, Y.*, Cauffman, S.*, Lau, M.*, Johnson, E.*, Cunningham, C., Kaber, D., & **Feng, J.** (2019). On-road and In-vehicle Delivery of Non-Safety-Related Messages: How Information Source and Presentation Format Impact Driver' Processing of Logo Signs and Hazard Response. In *The Proceedings of the 2019 Transportation Research Board Meeting*, Washington, DC, USA.
17. Sall, R.*, Wagner, B.*, & **Feng, J.** (2019). Drivers' Perceptions of Events: Implications for Theory and Practice. *Proceedings of the 2019 HFES 63rd International Annual Meeting, 63*(1), 1996-2000.
18. Deng, Y.*, Cauffman, S.*, Lau, M.*, Johnson, E.*, Cunningham, C., Kaber, D., & **Feng, J.** (2019). On-Road and In-Vehicle Delivery of Service Signs: Effects of Information Source and Age. *Proceedings of the 2019 HFES 63rd International Annual Meeting, 63*(1), 1996-2121.
19. Kasko, J.*, Choi, H., & **Feng, J.** (2019). Older Drivers' Differential Performance across Hazardous Scenarios. *Proceedings of the 2019 HFES 63rd International Annual Meeting, 63*(1), 27-31.
20. Wilkinson, M.*, Pugh, Z.*, Crowson, A.*, Mayhorn, C., Gillan, D., & **Feng, J.** (2019). Manipulating Arousal in Virtual Reality: A feasibility study using slow-motion experience. *Proceedings of the 2019 HFES 63rd International Annual Meeting, 63*(1), 1649-1653.
21. Geden, M.*, Smith, A., Campbell, J., Amos-Binks, A.; Mott, B., **Feng, J.**, & Lester, J. (2018). Towards adaptive support for anticipatory thinking. In *Proceedings of the Technology, Mind, and Society*, Washington, DC, USA.

22. Choi, H.* & **Feng, J.** (2018). Older drivers' self-awareness of functional declines influences adoption of compensatory driving. In *The Proceedings of Transportation Research Board 97th Annual Meeting,* Washington, DC, USA. Report/paper number: 18-00360.
23. Namian, M.*, Albert, A., & **Feng, J.** (2018). Effects of distraction on hazard recognition and safety risk perception. In *the Proceedings of the Construction Research Congress 2018.*
24. Clark, H.*, McLaughlin, A. C., Williams, B., & **Feng, J.** (2017). Performance in takeover and characteristics of non-driving related tasks during highly automated driving in younger and older drivers. *Proceedings of the 2017 HFES 61st International Annual Meeting, 61*(1), 37-41.
25. Clark, H.*, McLaughlin, A. C., & **Feng, J.** (2017). Situational awareness and time to takeover when viewing simulated driving with high-level automation. *Proceedings of the 2017 HFES 61st International Annual Meeting, 61*(1), 1452-1456.
26. Sall, R. J.*, Wu, S., Spence, I. & **Feng, J.** (2017). Destination, seen unclearly: relevance of heads-up display information to driving is unrelated to its processing. *Proceedings of the 2017 HFES 61st International Annual Meeting, 61*(1), 1899-1903. [Best student paper finalist]
27. Barik, T.*, Smith, J., Lubick, K., Holmes, E., **Feng, J.**, Murphy-Hill, E., & Parnin, C. (2017). Do developers pay attention to error messages? In *The Proceedings of the 39th International Conference on Software Engineering*, Buenos Aires, Argentina.
28. Sall, R.*****, & **Feng, J.** (2016). Better off alone: presence of one hazard impedes detection of another when presented together in simulated traffic scenes. *Proceedings of the 2016 HFES 60th International Annual Meeting, 60*(1), 1444-1448.
29. Choi, H.*****, & **Feng, J.** (2016). Differential association of distinct attentional functions with specific driving errors and crash types. In *the Proceedings of the 95th Transportation Research Board Annual Meeting*, Washington, USA. Report/paper number: 16-6892.
30. Choi, H.*****, Nam, C., & **Feng, J.** (2015). A wandering mind cannot resolve conflicts in displayed information. *Proceedings of the 2015 HFES 59th International Annual Meeting, 59*(1), 1397-1401.
31. Clark, H.*****, & **Feng, J.** (2015). Semi-autonomous vehicles: Examining driver performance during take-over. *Proceedings of the 2015 HFES 59th International Annual Meeting, 59*(1), 781-785.
32. Geden, M.*****, & **Feng, J.** (2015). Simulated driving environment impacts mind wandering. *Proceedings of the 2015 HFES 59th International Annual Meeting, 59*(1), 776-780.
33. Choi, H.*, Grühn, D., & **Feng, J.** (2015). Self-report attentional failures during driving relate to on-road crashes and simulated driving performance of older drivers. In *the Proceedings of the 94th Transportation Research Board Annual Meeting*, Washington, USA. Report/paper number: 15-5079.
34. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., Naglie, G., Choi, H.*, & Medina, A.* (2015). Drive Aware Task: Measuring attention in the context of driving. In *the Proceedings of the 94th Transportation Research Board Annual Meeting*, Washington, USA. Report/paper number: 15-4960.
35. Choi, H.*****, & **Feng, J.** (2014). Age-related differences in attentional failures during driving: A self-report measure. *Proceedings of the 2014 HFES 58th International Annual Meeting, 58*(1), 195-199.
36. Riggan, B. S.*****, Snyder, W. E., Wang, X., & **Feng, J.** (2014). A human factors study of graphical passwords using biometrics. In X. Jiang, et al. (Eds.) *Pattern Recognition: Lecture Notes in Computer Science 2014*, 464-475.
37. **Feng, J.**, Marulanda, S., & Donmez, B. (2014). Susceptibility to driver distraction questionnaire: development and relation to relevant self-reported measures. In *the Proceedings of the Annual Meeting of the Transportation Research Board*, Washington, USA.
38. **Feng, J.**, & Donmez, B. (2013). Design of Effective feedback: understanding driver, feedback and their interaction. In t*he Proceedings of the 7th International Symposium on Human Factors in Drivers Assessment, Training, and Vehicle Design*, Bolton Landing, NY, USA.
39. **Feng, J.**, & Spence, I. (2010). Left or right? Spatial arrangement for information presentation. In *the Proceedings of IBM CASCON 2010*, Toronto, Canada.
40. **Feng, J.**, & Spence, I. (2008). Video games change your brain. In *the Proceedings of Meaningful Play 2008*, East Lansing, Michigan, USA.

41. **Feng, J.**, & Spence, I. (2008). Attending to large dynamic displays. In the *Proceedings of Computer-Human Interaction (CHI) 2008*, Florence, Italy.
42. **Feng, J.**, & Spence, I. (2007). Effects of cognitive training on individual differences in attention. In *the Proceedings of HCI International 2007: Engineering Psychology and Cognitive Ergonomics, 13*, 279-287.
43. **Feng, J.**, & Spence, I. (2006). Closing the gender gap by training using action video games. In *the Proceedings of the Second IASTED International Conference on Education and Technology*, Calgary, Canada.
44. **Feng, J.**, & Spence, I. (2006). Prepare women for careers in ICT using video games. In the *Proceedings of IBM CASCON 2006*, Toronto, Canada.

Book Chapters and Encyclopedia Entries (9 in total, 6 with students)

1. **Feng, J.**, Bai, X.*, Liu, Y., & Cunningham, C. (2026). Proactive remote operation of automated vehicles: Supporting human controllability. In X. Wei (Ed.) *Handbook of Human-Centered Artificial Intelligence*. Springer Nature, Singapore.
2. Ware, M.*, **Feng, J.**, & Nam, C. S. (2020). Neuroergonomics behind the wheel: Neural correlates of driving. In C. S. Nam (Ed.) *Neuroergonomics: Principles and Practice* (pp. 353-388). Springer.
3. McLaughlin, A. C., Pryor, M.*, & **Feng, J.** (2019). Design the technological society for an aging population. In H. Lum (Ed.), *Critical Issues Impacting Science, Technology, and Society*. IGI Global: Hershey, PA.
4. **Feng, J.** & Spence, I. (2018). Playing action video games boosts visual attention. In C. J. Ferguson (Ed.) *Video Game Influences on Aggression, Cognition, and Attention* (Chapter 8, pp.93-104). Springer International Publishing AG, part of Springer Nature. DOI:10.1007/978-3-319-95495-0_8
5. 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 R. Pak, & A. McLaughlin (Eds.) *Aging, Technology and Health* (Chapter 4, pp.81-111). Elsevier.
6. Choi, H.* & **Feng, J.** (2017). Using video games to improve spatial abilities. Invited book chapter in R. Zheng, & M. Gardner (Eds.) *The Handbook of Research on Serious Games for Educational Applications* (Chapter 5, pp.93-114).
7. McLaughlin, A. C., **Feng, J.**, & Whitlock, L. (2016). Video Game Training. In S. Whitbourne (Eds.) *The Encyclopedia of Adulthood and Aging*. Wiley-Blackwell.
8. Choi, H.*****, & **Feng, J.** (2016). General Slowing Hypothesis. In S. Whitbourne (Eds.) *The Encyclopedia of Adulthood and Aging*. Wiley-Blackwell.
9. McLaughlin, A. C., **Feng, J.**, & Pak, R. (2015). Design for lifelong learning and fulfillment: convergence of science and technology in a hierarchy of needs. In W. S. Bainbridge, & M. C. Roco (Eds.) *Handbook of Science and Technology Convergence* (pp.1073-1087). Springer.

Technical Reports (9 in total, 6 with students)

1. Chen, D., **Feng, J.**, Pugh, Z., & Xu, D. (2025). Review the state-of-the-art studies on the public's perception of advanced driver assistance systems and assess the actual performance. Technical report submitted to North Carolina Department of Transportation.
2. **Feng, J.**, Kaber, D., & Cunningham, C. (2020). Designing In-Vehicle Message Delivery with Manual and Highly Automated Driving. Technical report submitted to North Carolina Department of Transportation.
3. Lester, J., **Feng, J.**, Mott, B., Smith, A., Geden, M.*, Spain, R., & Wagner, B.* (2019). *Anticipatory Thinking in Support of Risk Identification*. Technical report submitted to Laboratory for Analytic Sciences.
4. **Feng, J.**, Yuan, J.*, Crowson, A.*, & Richardson, G.* (2019). *Needs and Challenges of Older Drivers in North Carolina: Development and Testing of the DriveAware Training*. Technical report submitted to North Carolina Governor's Highway Safety Program.
5. Lester, J., **Feng, J.**, Mott, B., Smith, A., Geden, M.*, Spain, R. (2018). *Securing Critical Infrastructure: Anticipatory Thinking Environments, Modeling, and Measuring*. Technical report submitted to Laboratory for Analytic Sciences.

6. **Feng, J.**, Kasko, J.*, Foss, R., Goodwin, A., & Wang, Y. (2018). *Needs and Challenges of Older Drivers in North Carolina: Development of the DriveAware Assessment*. Technical report submitted to North Carolina Governor's Highway Safety Program.
7. Lester, J., **Feng, J.**, Mott, B., Smith, A., Geden, M.* (2017). *Securing Critical Infrastructure: Anticipatory Thinking Environments, Modeling, and Measuring*. Technical report submitted to Laboratory for Analytic Sciences.
8. **Feng, J.**, Kasko, J.*, Foss, R., Goodwin, A., & Wang, Y. (2017). *Needs and Challenges of Older Drivers in North Carolina: Crash Patterns, Driving Habits, Competence and Cognitive Functioning*. Technical report submitted to North Carolina Governor's Highway Safety Program.
9. **Feng, J.**, & Donmez, B. (2013). *Designing feedback to induce safer driving behaviors: A literature review and a model of driver-feedback inter*action. Technical report submitted to Toyota Collaborative Safety Research Center.

Presentations and Posters

Conference Presentations (24 in total, 14 with students)

1. Cui, L.*, Bai, X.*, & **Feng, J.** (2025). The interplay between driver dynamic trust and their self-confidence in monitoring automation. Presentation at *the 2025 International Annual Meeting of the Human Factors and Ergonomics Society*, Chicago, IL.
2. Bai, X.*, & **Feng, J.** (2023). Unlocking Safer Driving: How Answering Questions Helps Takeovers in Partially Automated Driving. Presentation at *the 2023 International Annual Meeting of the Human Factors and Ergonomics Society*, Washington, DC.
3. **Feng, J.**, Chu, Y.*, Deveshwar, H., & Hollar, S. (2023). What does that car mean? Design of LED signals to promote pedestrians' Interpretation of an autonomous Vehicle's Intent. Presentation at the *2023 APA Convention*, Washington, DC.
4. Yuan, J., Bai, X.*, Alilis, A., Liu, M., Huang, H., & **Feng, J.** (2022). Understanding the Preferences for Lower-Limb Prosthesis: A Think-Aloud Study during User-Guided Auto-Tuning. Presentation at *the 2022 International Annual Meeting of the Human Factors and Ergonomics Society*, Atlanta, GA.
5. Wilkinson, M.*, Brantley, S.*, & **Feng, J.** (2021). A mini review of presence and immersion in virtual reality. Presentation at t*he 2021 International Annual Meeting of the Human Factors and Ergonomics Society*, online.
6. Cauffman, S. J.*, Deng, Y.*, Liu, Y., Cunningham, C., Kaber, D., & **Feng, J.** (2020). Driver logo sign detection and hazard responses during partially automated driving. Presentation at *the 2020 International Annual Meeting of the Human Factors and Ergonomics Society*, online.
7. Wagner, R. B.*, Geden, M.*, Forster, S., & **Feng, J.** (2020). Driver visual processing of relevant and irrelevant information during mind wandering. Presentation at *the 2020 International Annual Meeting of the Human Factors and Ergonomics Society*, online.
8. Deng, Y.*, Cauffman, S. J.*, Lau, M. Y., Johnson, E., Avr, A., Cunningham, C., Kaber, D., & **Feng, J.** (2020). Driver logo sign detection and hazard responses during partially automated driving. Presentation at *the 1st IEEE International Conference on Human Machine Systems*, online.
9. Sall, R.* & **Feng, J.** (2019). Drivers' Perceptions of Events: Implications for Theory and Practice. Presentation at *the 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
10. Deng, Y.*, Cauffman, S.*, Lau, M.*, Johnson, E.*, Cunningham, C., Kaber, D., & **Feng, J.** (2019). On-Road and In-Vehicle Delivery of Service Signs: Effects of Information Source and Age. Presentation at *The 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
11. Kasko, J.* & **Feng, J.** (2019). Older Drivers' Differential Performance across Hazardous Scenarios. Presentation at t*he 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
12. Clark, H.*, McLaughlin, A., Williams, B., & **Feng, J.** (2017). Performance in takeover and characteristics of non-driving related tasks during highly automated driving in younger and older drivers. Presentation at *the 2017 International Annual Meeting of the Human Factors and Ergonomics Society*, Austin, TX, USA.

13. Sall, R. J.*, Wu, S., Spence, I. & **Feng, J.** (2017). Destination, seen unclearly: relevance of heads-up display information to driving is unrelated to its processing. Presentation at *the 2017 International Annual Meeting of the Human Factors and Ergonomics Society*, Austin, TX, USA.
14. Choi, H.*****, Nam, C., & **Feng, J.** (2015). A wandering mind cannot resolve conflicts in displayed information. Presentation at *the 2015 International Annual Meeting of the Human Factors and Ergonomics Society*, San Francisco, CA, USA.
15. Choi, H.*****, & **Feng, J.** (2014). Attentional failures during driving. Presentation at the *2014 International Annual Meeting of the Human Factors and Ergonomics Society*, Chicago, IL, USA, October 2014.
16. **Feng, J.** (2013). Care for brain health in older drivers. Presentation at *North Carolina State University Healthcare IT Forum*, Raleigh, North Carolina, USA, November 2013.
17. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., & Naglie, G. (2012). Designing a fitness-to-drive measure for older drivers. Presentation at *the 13th Inter-University Workshop on Human Factors*, Toronto, Canada, October 2012.
18. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., & Naglie, G. (2012). Aging, attention and training. Presentation at *Toronto Rehab DriverLAB*, Toronto, Canada, Feburary 2012.
19. **Feng, J.**, & Spence, I. (2010). Left or right? Spatial arrangement for information presentation. Presentation at *IBM CASCON 2010*, Toronto, Canada, November 2010.
20. **Feng, J.**, & Spence, I. (2010). Play changes the brain. Presentation at *INPLAY 2010*, Toronto, Canada, May 2010.
21. **Feng, J.**, & Spence, I. (2008). Video games change your brain. Presentation at *Meaningful Play 2008*, East Lansing, Michigan, USA, October 2008.
22. **Feng, J.**, & Spence, I. (2007). Effects of cognitive training on individual differences in attention. Presentation at *HCI International 2007*, Beijing, China, July 2007.
23. **Feng, J.** (2007). Effects of video game playing on individual differences in attention. Presentation at *the 8th Annual Inter-University Workshop on Human Factor Engineering*, Toronto, Canada, January 2007.
24. **Feng, J.**, & Spence, I. (2006). Closing the gender gap by training using action video games. Presentation at *the Second IASTED International Conference on Education and Technology*, Calgary, Canada, July 2006.

Conference Posters (45 in total, 35 with students)

1. Bai, X.*, Tacca, J., Liu, M., Buxton, E., Lewek, M., **Feng, J.**, & Huang, H. (2025). Evaluating cognitive workload with the auditory stroop task while using a lower limb prosthesis: A feasibility study. Poster presented at *the 2025 International Conference on Rehabilitation Robotics (ICORR)*.
2. Bai, X.*, & **Feng, J.** (2024). Capturing the mind: Non-driving-related tasks as a window into cognitive engagement in automated driving. Poster presented at *the 2024 HFES 68th International Annual Meeting*, Phoenix, AZ.
3. Shoffner, L.*, & **Feng, J.** (2024). Simultaneous remote monitoring of multiple automated vehicles. Poster presented at *the 2024 HFES 68th International Annual Meeting,* Phoenix, AZ.
4. Yuan, J., Driscoll, B., Alili, a., Liu, M., Bai, X.*, Huang, H., & **Feng, J.** (2023). The validation of standing and walking attention visual field (SWAVF) task. Poster presented at *the 2023 APA Convention*, Washington, DC.
5. Chen, J., Lan, Z., Yuan, J., & **Feng, J.** (2023). Trust in automation and takeover performance during automated driving: An experimental study. Poster presented at *the 2023 APA Convention*, Washington, DC.
6. Yuan, J., Driscoll, B., Alili, a., Liu, M., Bai, X.*, Huang, H., & **Feng, J.** (2023). The validation of standing and walking attention visual field (SWAVF) task. Poster presented at *the 2023 North Carolina Cognition Conference*, Winston-Salem, NC.
7. Ketzes, K. R., Licari, J., Shoffner, L., Chu, Y., & **Feng, J.** (2023). Online and field studies of pedestrians' interpretations of an automated vehicle's signals. Poster presented at *the 2023 North Carolina Cognition Conference*, Winston-Salem, NC.
8. **Feng, J.**, Deng, Y.*, Cauffman, S.*, Cunningham, C., & Kaber, B. (2022). Driver glances to on-road and in-vehicle signage during partial and conditional automation. Poster presented at *the 2022 APA Convention*, Minneapolis, MN.
9. Chu, Y.*, Deveshwar, H., Hollar, S., & **Feng, J.** (2022). What Does That Car Mean? The Influence of Vehicle Motion and Symbolic Patterns of LED Signals on Pedestrians' Interpretation of a Vehicle's Intent. Poster presented at *the 2022 International Annual Meeting of the Human Factors and Ergonomics Society*, Atlanta, GA.

10. Morrison, D.*, Cui, L.*, & **Feng, J.** (2022). An Online Method to Study Remote Operation of Automated Vehicles. Poster presented at *the 2022 International Annual Meeting of the Human Factors and Ergonomics Society*, Atlanta, GA.
11. Brantley, S.*, Wilkinson, M.*, & **Feng, J.** (2021). Beat the bots: exploring the effects of placebo/nocebo manipulation on performance during video gameplay. Poster presented at *the 2021 International Annual Meeting of the Human Factors and Ergonomics Society*, online.
12. Deng, Y.*, Lau, M. L.*, Cauffman, S. J.*, Ebony, J.*, Cunningham, C., Kaber, D., & **Feng, J.** (2020). Display of non-safety-related information through in-vehicle displays. Poster presented at *The Proceedings of the 2020 Transportation Research Board Meeting, Washington, DC*.
13. Wilkinson, M.*, Pugh, Z.*, Crowson, A.*, Mayhorn, C., & **Feng, J.** (2019). Manipulating Arousal in Virtual Reality: A feasibility study using slow-motion experience. Poster presented at *The 2019 International Annual Meeting of the Human Factors and Ergonomics Society*, Seattle, WA, USA.
14. Wilkinson, M.*, Pugh, Z.*, Crowson, A.*, Mayhorn, C., & **Feng, J.** (2019). Manipulating arousal in virtual reality: A feasibility study using slow-motion experience. Poster presented at *the 2019 North Carolina Cognition Conference*, Raleigh, NC, USA.
15. Sall, R.*, & **Feng, J.** (2019). Event perception in the driver's seat. Poster presented at *the 2019 North Carolina Cognition Conference*, Raleigh, NC, USA.
16. Wagner, B.*, Geden, M., & **Feng, J.** (2019). The influence of mind wandering and inattentional blindness during driving in a simulator. Poster presented at *the 2019 North Carolina Cognition Conference*, Raleigh, NC, USA.
17. Kasko, J.*, Choi, H., & **Feng, J.** (2019). Older drivers' differential performance across hazard scenarios. Poster presented at *the 2019 North Carolina Cognition Conference*, Raleigh, NC, USA.
18. Sall, R.*, Lefebvre, E., Neupert, S. D., & **Feng, J.** (2018). What can intraindividual variability teach us about dual-target visual search? Poster presented at the 2018 *Annual Meeting of the Vision Science Society*, St. Pete Beach, FL, USA.
19. Geden, M.*, Smith, A., Campbell, J., Amos-Binks, A., **Feng, J.**, & Lester, J. (2018). Toward adaptive support for anticipatory thinking. Poster presented at the *Technology, Mind, and Society Conference*, Washington, DC, USA.
20. Choi, H.* & **Feng, J.** (2018). Older drivers' compensatory driving behaviors and self-awareness of functional declines. Poster presented at *The Proceedings of the 2018 Transportation Research Board Meeting, Washington, DC*.
21. Jackson, E.*, **Feng, J.**, Clark, H.*, & McLaughlin, A. C. (2018). Attention and take-over performance in semi-autonomous vehicles. *Poster presented at the 2018 Meeting of the North Carolina Cognition Group*, UNC-Chapel Hill, NC, USA.
22. Geden, M.*****, Staicu, A., & **Feng, J.** (2017). A mixed-effects modeling approach to studying the impact of mind wandering on selective attention. Poster presented at *the 2017 Joint Statistical Meetings*, Baltimore, MD, USA.
23. Clark, H.*, McLaughlin, A. C., & **Feng, J.** (2017). Situational awareness and time to takeover when viewing simulated driving with high-level automation. Poster presented at *the 2017 International Annual Meeting of the Human Factors and Ergonomics Society*, Austin, TX, USA.
24. Clark, H.*, & **Feng, J.** (2017). Situational Awareness in Automated Vehicles. Poster presented at *the 2017 Southeast Human Factors Conference (SHARC)*, Raleigh, NC, USA.
25. Kasko, J.*, & **Feng, J.** (2017). Physiological measures of hazard perception. Poster presented at *the 2017 Southeast Human Factors Conference (SHARC)*, Raleigh, NC, USA.
26. Choi, H.*, & **Feng, J.** (2016). Distinct attentional functions are differentially associated with specific driving errors and crash types. Poster presented at *the 2015 North Carolina Cognition Conference*, Wake Forrest, NC, USA.
27. Sall, R.*, & **Feng, J.** (2016). You've got two good eyes but you still don't see: the effect of salience in dual hazard perception. Poster presented at *the 2016 North Carolina Cognition Conference*, Wake Forrest, NC, USA.
28. Clark, H.*, & **Feng, J.** (2016). Take-over in partial autonomous driving. Poster presented at *the 2016 North Carolina Cognition Conference*, Wake Forrest, NC, USA.

29. Choi, H.*, & **Feng, J.** (2016). Distinct attentional functions are differentially associated with specific driving errors and crash types: evidence from a preliminary study. Poster presented at *the 95th Transportation Research Board Annual Meeting*, Washington, USA.
30. Clark, H.*****, & **Feng, J.** (2015). Driver behavior at take-over in partial autonomous driving. Poster presented at *the Proceedings of the 2015 International Annual Meeting of the Human Factors and Ergonomics Society*, San Francisco, CA, USA.
31. Geden, M.*****, & **Feng, J.** (2015). Environment impacts mind wandering during driving. Poster presented at *the 2015 International Annual Meeting of the Human Factors and Ergonomics Society*, San Francisco, CA, USA.
32. Choi, H.*, & **Feng, J.** (2015). Attentional functions of a wandering mind. Poster presented at *the 2015 North Carolina Cognition Conference*, Elon, NC, USA.
33. Clark, H.*, & **Feng, J.** (2015). The temporal effects of visual cues: how reliability affects task performance. Poster presented at *the 2015 North Carolina Cognition Conference*, Elon, NC, USA.
34. Geden, M.*, & **Feng, J.** (2015). Mind wandering during driving. Poster presented at *the 2015 North Carolina Cognition Conference*, Elon, NC, USA.
35. Choi, H.*, Grühn, D., & **Feng, J.** (2015). Self-report attentional failures during driving relate to on-road crashes and simulated driving performance of older drivers. Poster presented at *the 94th Transportation Research Board Annual Meeting*, Washington, USA.
36. **Feng, J.**, Craik, F. I. M., Levine, B., Moreno, S., Naglie, G., Choi, H.*, & Medina, A.* (2015). Drive Aware: measuring attention in the context of driving. Poster presented at *the 94th Transportation Research Board Annual Meeting*, Washington, USA.
37. Marulanda, S., **Feng, J.**, & Donmez, B. (2014). Susceptibility to driver distraction questionnaire: development and relation to relevant self-reported measures. Poster at *the Proceedings of the Annual Meeting of the Transportation Research Board*, Washington, USA, January 2014.
38. **Feng, J.**, & Donmez, B. (2013). Design of effective feedback: understanding driver, feedback and their interaction. Poster at *the 7th International Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*, Bolton Landing, New York, USA, June 2013.
39. **Feng, J.**, & Spence, I. (2012). Bias in the spatial distribution of attention. Poster at *the Annual Conference of the Cognitive Neuroscience Society*, Chicago, USA, April 2012.
40. **Feng, J.**, Spence, I., & Wu, S. (2012). Gender differences in working memory and mental rotation. Poster at *the Lake Ontario Visionary Establishment Annual Meeting*, Niagara Falls, Canada, February 2012.
41. **Feng, J.**, & Spence, I. (2012). Top-down control of attention across an extended visual field. Poster at *the Lake Ontario Visionary Establishment Annual Meeting*, Niagara Falls, Canada, February 2012.
42. **Feng, J.**, & Spence, I. (2010). Play changes the brain. Poster at *INPLAY 2010*, Toronto, Canada, May 2010.
43. Spence, I., & **Feng, J.** (2009). Video games and spatial cognition. Poster at *the Annual University of Toronto's Knowledge Media Design Institute 2009*, Toronto, Canada, December 2009.
44. **Feng, J.**, & Spence, I. (2008). Attending to large dynamic displays. Poster at *Computer-Human Interaction (CHI) 2008*, Florence, Italy, April 2008.
45. **Feng, J.**, & Spence, I. (2006). Prepare women for careers in ICT using video games. Poster at *IBM CASCON 2006*, Toronto, Canada, October 2006.

Invited Talks

1. **Feng, J.** (2024). The Role of Human Operator in Automated Driving. Invited to the *Autonomous Vehicle Symposium in the World of Artificial Intelligence: Enhancing Autonomous Vehicle Use and Development.* Department of Civil, Construction, and Environmental Engineering, North Carolina State University, April 2024.
2. **Feng, J.** (2024). Paradox of Driver Distraction. Invited to the *DARTS: Discussions Advancing Research in Transportation Safety*, a research symposium hosted by the National Highway Transportation Safety Administration (NHTSA), January 2024.

3. **Feng, J.** (2023). Measuring Attention in Older Adults in the Context of Driving. Invited to the *University of North Carolina Greensboro Psychology Seminar*, April 2023.
4. **Feng, J.** (2021). Attention in Driving: Distraction, Technology, and Design. Invited to the *APA Convention Division 21 Awardee Talks*, August 2021.
5. **Feng, J.** (2021). Road Hazard Detection in Older Drivers: Measurement, Strategies, and Training. Invited to the *Meeting of NC/VA Association for Driver Rehabilitation Specialists*, June 2021.
6. **Feng, J.** (2019). Attention and Human Factors in Driving. Invited to the UNC Highway Safety Research Center, Chapel Hill, NC, April 2019.
7. **Feng, J.** (2017). Attention and Human Factors in Driving. Invited to Humans and Autonomy Lab, *Duke University*, Durham, NC, August 2017.
8. **Feng, J.** (2017). Attention in Transportation Human Factors Research. Invited to *Key Lab of Traffic Engineering, Beijing University of Technology*, Beijing, China, July 2017.
9. **Feng, J.** (2017). Attention and Inattention in Driving. Invited to *Department of Psychology, Zhejiang University*, Hangzhou, Zhejiang, China, June 2017.
10. **Feng, J.** (2017). The Paradox of Distraction. Invited to *Department of Psychology, Sun Yet-San University*, Guangzhou, Guangdong, China, June 2017.
11. **Feng, J.** (2017). Aging, Driving and Automation. Invited to the *Autonomous Vehicle Workshop* organized by Triangle J Council of Governments, Durham, North Carolina, April 2017.
12. **Feng, J.** (2016). Aging and Driving. Invited to the conference on *Aging and Environment*, Raleigh, North Carolina, October 2014.
13. **Feng, J.** (2014). Attentional Failures during Driving. Invited to *the Carolina Chapter of Human Factors and Ergonomics Society*, February 2014.
14. **Feng, J.** (2013). Play Changes the Brain. Invited to *Ontario Science Center*, Toronto, Canada, April 2013.
15. **Feng, J.** (2011). Human Attention and Display Design. Invited to *Nokia Research Center Beijing*, Beijing, China, April 2011.
16. **Feng, J.** (2011). Gender and Spatial Cognition. Invited to *Institute of Psychology, Chinese Academy of Sciences*, Beijing, China, April 2011.
17. **Feng, J.**, & Spence, I. (2010). Play Changes the Brain. Invited to *INPLAY 2010*, Toronto, Canada, April 2010.
18. **Feng, J.**, & Spence, I. (2007). Becoming more Attentive by Playing Video Games. Invited to *Defence Research and Development (DRDC) Canada*, Toronto, Canada, October 2007.

Select Media Exposure

1. Pappas, S. (2022). With traffic deaths on the rise, psychologists are being called on to make driving safer. *Monitor on Psychology*, American Psychological Association, June 1, 2022.
2. Dunn, N. (2017). Mind on the road. *NC State Accolades*, October 2017.
3. Edmé, B. (2017). NC State researchers use simulator to make roads safer. *CBS North Carolina*, June 21, 2017.
4. Fleming, N. (2013). Why video games may be good for you. *BBC (Future)*, August 26, 2013.
5. Bagley, K. (2012). Get your game on. *YouBeauty*, November 8, 2012.
6. Author. (2007). Nurture strikes back: some sex differences that look biological are really cultrue. *The Economist*, September 7, 2007.
7. Elias, C. (2007). Playing video games reduces sex differences in spatial skills. *University of Toronto Bulletin*, September 25, 2007.
8. Author. (2007). Playing video games reduces sex differences in spatial skills. *ScienceDaily*, October 26, 2007.
9. Rempel, S. (2007). Games improve women's spatial skills. *The Toronto Star*, November 8, 2007.
10. Carpenter, S. (2007). Shoot first, ace geometry later: video games may eliminate the gender gap in spatial skills. *Scientific American Mind*, December 2007.
11. Zacharzewski, M. (2007). Graj, bedziesz lepszy z matmy! (in Polish). *GameRanking*, December 2007.

Teaching

Regularly teaching both undergraduate and graduate courses at NC State.

Biological Psychology (one of the four core courses in the undergraduate curriculum)
Ergonomics / Human Factors Psychology (an interdisciplinary undergraduate human factors course)
Human Attention (a graduate seminar and new addition to the graduate curriculum)
Physiological Psychology (a core course in the graduate curriculum)

2025 Fall	Biological Psychology	PSY 430 601	99 students
2025 Fall	Biological Psychology	PSY 430 003	33 students
2025 Spring	Biological Psychology	PSY 430 004	42 students
2025 Spring	Biological Psychology	PSY 430 601	100 students
2025 Spring	Biological Psychology	PSY 430 004	42 students
2024 Fall	Biological Psychology	PSY 430 601	110 students
2024 Fall	Biological Psychology	PSY 430 002	52 students
2024 Spring	Biological Psychology	PSY 430 601	110 students
2024 Spring	Human Attention	PSY 710 029	9 students
2023 Fall	Biological Psychology	PSY 430 601	100 students
2023 Spring	Biological Psychology	PSY 430 601	102 students
2023 Spring	Biological Psychology	PSY 430 003	40 students
2022 Fall	Biological Psychology	PSY 430 601	99 students
2022 Fall	Biological Psychology	PSY 430 002	40 students
2022 Spring	Human Attention	PSY 710 029	10 students
2022 Spring	Human Factors Psychology	PSY 340 001	38 students
2021 Fall	Human Factors Psychology	PSY 340 001	40 students
2020 Fall	Biological Psychology	PSY 430 001	202 students
2020 Spring	Human Attention	PSY 710 029	5 students
2019 Fall	Biological Psychology	PSY 430 002	42 students
2019 Spring	Biological Psychology	PSY 430 002	49 students
2018 Fall	Biological Psychology	PSY 430 001	119 students
2018 Fall	Biological Psychology	PSY 430 002	41 students
2018 Spring	Physiological Psychology	PSY 502 001	16 students
2018 Spring	Human Attention	PSY 710 001	18 students
2017 Fall	Biological Psychology	PSY 430 002	52 students
2017 Fall	Ergonomics	PSY 340 001	32 students
2017 Spring	Biological Psychology	PSY 430 001	50 students
2017 Spring	Biological Psychology	PSY 430 002	45 students
2016 Fall	Ergonomics	PSY 340 001	43 students
2016 Fall	Biological Psychology	PSY 430 001	47 students
2016 Spring	Human Attention	PSY 710 003	13 students
2016 Spring	Biological Psychology	PSY 430 001	33 students
2015 Fall	Biological Psychology	PSY 430 001	47 students
2015 Fall	Biological Psychology	PSY 430 002	43 students
2015 Spring	Ergonomics	PSY 430 001	27 students
2015 Spring	Biological Psychology	PSY 430 001	49 students
2014 Fall	Ergonomics	PSY 340 001	43 students
2014 Fall	Biological Psychology	PSY 430 001	51 students
2014 Spring	Ergonomics	PSY 430 001	23 students
2014 Spring	Human Attention	PSY 710 003	9 students
2013 Fall	Biological Psychology	PSY 430 001	44 students

Research Advising

Postdoctoral Fellow

Jing Yuan, PhD, 2021-2023
Current position: Senior Manager at Takeda Pharmaceuticals America

Graduate

Chair or co-Chair of the committee (graduated, n=8)

Xiaolu Bai (PhD, Psychology), 2025
Current position: Researcher at AAA Foundation for Traffic Safety
Michael Wilkinson (PhD, Psychology), 2025
Current position: Head of Research & Design at Rune Technologies
Hallie Clark (PhD, Psychology), 2025
(Master, Psychology), 2016
Current position: Researcher at Lenovo
Blake Wagner (PhD, Psychology), 2023
Current position: Senior Human Factors Engineer at MITRE
Robert Sall (PhD, Psychology), 2020
Current position: Senior Human Factors Researcher at J. S. Held
Yulin Deng (PhD, Industrial and Systems Engineering; co-chair with Dr. David Kaber), 2019
Current position: Program Application Manager at Fresenius Medical Care North America
Michael Geden (PhD, Psychology), 2018
Current position: Data Scientist at Modern Hire
HeeSun Choi (PhD, Psychology), 2016
Current position: Assistant Professor in Human Factors Psychology, Texas Tech University

Chair or co-chair of the committee (current, n=3)

Xiao Yu (PhD student, Psychology), 2026 –
Lingfan Cui (PhD student, Psychology), 2023 –
Lane Shoffner (PhD student, Psychology), 2022 –

Committee member (graduated, n=40)

Brendan Driscoll (PhD, Biomedical Engineering), 2025
Zachary Harris Pugh (PhD, Psychology), 2025
Ralph Own Clark (PhD, Psychology), 2025
Olivia McGough (PhD, Psychology), 2025
Tianyu Wu (PhD, Computer Science), 2024
Lu Lu (PhD, Industrial Engineering), 2024
Patrick Seebold (PhD, Psychology), 2024
Imarni Murphy (PhD, Psychology), 2024
Ziyang Xie (PhD, Industrial Engineering), 2023
Meichun Liu (PhD, Design), 2022
Nathan Henderson (PhD, Computer Science), 2022
Sepide Saiedlue (PhD, Design), 2021
Patrick Lawson (PhD, Psychology), 2021
Stephen Cauffman (PhD, Psychology), 2020
Byungsoo Kim (PhD, Design), 2020
Na Young Kim (PhD, Industrial Engineering), 2019
Federico Scholcover (PhD, Psychology), 2019
Jesseca Taylor (PhD, Psychology), 2019

Laura Matalenas (PhD, Psychology), 2019
James Baker (PhD, Psychology), 2019
Mei Lau (PhD, Industrial Engineering), 2019
Thomas Stokes (PhD, Psychology), 2018
Titus Barik, (PhD, Computer Science), 2018
John Grishin (PhD, Psychology), 2018
John Sprufera (PhD, Psychology), 2018
Jenna Darrah (Master, Psychology), 2018
James Shirley (Master, Industrial Engineering), 2018
Mostafa Namian (PhD, Civil Engineering), 2017
Yulin Deng (Master, Industrial Engineering), 2017
Laura Matalenas (Master, Psychology), 2017
Michelle Taub (PhD, Psychology), 2017
Allaire Welk (PhD, Psychology), 2017
Thomas Stokes (Master, Psychology), 2017
Addison English (Master, Psychology), 2016
Mei Lau (Master, Industrial Engineering), 2016
Olivia Morejon (Master, Industrial Engineering), 2016
Olga Zielinska (Master, Psychology), 2015
Alex Trowbridge (Master, Psychology), 2015
Allaire Welk (Master, Psychology), 2015
William Grenhart (Master, Psychology), 2015

Committee member (current, n=6)
Celia Henderson (PhD student, Psychology), 2023 –
Aaron Crowson (PhD student, Psychology), 2023 –
Elliot Nauert (PhD student, Psychology), 2023 –
Lin Whipkey (PhD student, Design), 2022 –
Emily Wright (PhD student, Psychology), 2019 –
Yue He (PhD student, Design), 2017 –

Undergraduate

Provost Professional Experience Program (PEP)
2025-26: Kirsten Jackson
2024-25: Meaghan Hebert, Nolan Elmore
2023-24: Amy Patel, Austin Burg
2022-23: Joseph Dominick Licari, Emily Gaete
2021-22: Emily Cline
2020-21: Sabrina Sicilia, Cameron Bray
2018-19: Luke Short, Kayla Payne, Celia Henderson
2017-18: Sara Clore

Office of Undergraduate Research Program
2023: Isabella Lillian Evans

PSY 499 (Individual Study in Psychology) and PSY 498 (Psychology Honors Seminar)

2025 (6 students)

Meaghan Hebert	Adam Rich	Kirsten Jackson	Ireland White
Anika Gupta	Heather Tsapp		

2024 (5 students)

Meaghan Hebert	Lynn AlJaafari	Isabella Evans	Madilyn Maddrey
Amy Patel	Ireland White		

2023 (5 students)

Joseph Dominick Licari	Katie Rose Ketzes	Lydia Adam Papadopoulou	Amy Patel
Reid James McKee			

2022 (7 students)

Isabella Lillian Evans	Katie Rose Ketzes	Joseph Dominick Licari	Kayla Guillemette
Jojo Wahl	Emily Gaeta	Megan Johannes	

2021 (11 students)

Emily Gaeta	Lisha Hunnicutt	Morgan McElhaney	Rebecca Osborne
Lingfan Cui	Sean Brantley	Cameron Bray	Danielle Morrison
Bethany Salapek	Sabrina Sicilia	Lexi Wirth	

2020 (12 students)

Melina Abatzis	Joshua Blair	Lingfan Cui	Nicole Patterson
Bethany Salapek	Sabrina Sicilia	Sean Brantley	Cameron Bray
Katie Gillespie	Tiana Jesse Lee	Rebecca Osborne	Lexi Wirth

2019 (12 students)

Angela Acosta	Joshua Blair	Emily Cline	Lingfan Cui
Brock McKenzie	Nicole Patterson	Bethany Salapek	Seth Wiggs
Austen Bauer	Sara Clore	Kaitlyn Marley	Alex Young

2018 (16 students)

Celia Henderson	Ivan Guerrero	Jacklyn Komoski	Kylie Litaker
Brock McKenzie	Ashleigh Polisky	Luke Short	Michelle Cota Miranda
Derrick Cramp	Cecily Jones	Elijah Lockhart	Emma Marand
Kyla Paynes	Ashlyn Shore	Charles White	Philip Zendels

2017 (14 students)

Anna Bringle	Sara Clore	Michelle Cota Miranda	Kyle Lorenzo
Alexander Olosu	Ashlyn Shore	Luke Short	Charles White
Grace Yusckat	Philip Zendels	Anna Bringle	Geoffrey Richardson
Lindsey Thayer	Grace Yusckat		

2016 (7 students)

Anna Bringle	Lillian Gates	Laura McAtee	Geoffrey Richardson
Philip Zendels	Darrius Anderson	Shannon Sauls	

2015 (7 students)

Jesse DeLaRosa	Katherine Reavis	Ahmet Erbas	Jennifer Funaro
Zachary McRorie	Camilo Uribe Bernal	Jackson Wood	

2014 (8 students)

Annie Melton	Katherine Reavis	Erica Shade	Lesley Winchester
Jackson Wood	Hallie Clark	Sean McClain	Katherine Reavis

2013 (2 students)

Hallie Clark	Jenny Yann

Summer GEARS Program for Global Research Training

Dan Yan (The Chinese University of Hong Kong – ShenZhen)
Deyu Wang (The Chinese University of Hong Kong - ShenZhen)
Jiaxi Chen (Renming University, China)
Zili Lan (Rutgers, USA)
Peicheng Wang (Qingdao University of Technology, China)
Yueying Chu (Zhejiang University, China)
Xin Ye (Zhejiang University, China)
Xiao Yu (Zhejiang University, China)
Yajie Lin (Northeastern University, China)

Yixiao Xu (Zhejiang University, China)
Ziwei Chen (Zhejiang University, China)

Research Interns

Andy Jin (BSc, UNC-Chapel Hill)
Anika Nurin Khan (Freshman, UNC-Chapel Hill)
Phoebe Pradhan (Junior, UNC-Chapel Hill)
Elizabeth Holmes (Sophomore, Washington and Lee University)
Joseph Sanchez (Junior, NC State)
Kylie Litaker (Junior, NC State)
Geoffery Richardson (Junior and Senior, NC State)
Cecily Jones (Senior, NC State)
Emily Cline (Senior and Post-grad, NC State)

Professional Activities and Service

Division President
APA Division 21, Applied Experimental and Engineering Psychology, 2025-2026

Program Chair
APA Division 21, Applied Experimental and Engineering Psychology, 2021-2023
ACH30 (AND10): User Characteristics, Transportation Research Board (TRB), 2018
Aging Technical Group, Human Factors and Ergonomics Society (HFES), 2015

Technical Group Chair
Aging Technical Group, Human Factors and Ergonomics Society (HFES), 2019-2021

Workshop Co-Chair
ACH30 (AND10): User Characteristics, Transportation Research Board (TRB), 2022-2025

Doctoral Colloquium Program Co-Chair (2022)
International Conference on Automotive User Interfaces and Interaction Vehicular Applications (AutomotiveUI)

Publication Program Co-Chair (2020, 2021)
International Conference on Automotive User Interfaces and Interaction Vehicular Applications (AutomotiveUI)

Video Program Co-Chair (2018)
International Conference on Automotive User Interfaces and Interaction Vehicular Applications (AutomotiveUI)

Chapter President (2016)
Carolina Chapter, Human Factors and Ergonomics Society (HFES)

Member
Transportation Research Board (TRB) Human Factors in Road Vehicle Automation Joint Subcommittee
Transportation Research Board (TRB) Standing Committee on Vehicle User Characteristics
Association of Psychological Science (APS)
American Psychological Association (APA), Division 21: Applied Experimental and Engineering Psychology
American Psychological Association (APA), Applied Psychology Advisory Group (representing Division 21)
Human Factors and Ergonomics Society (HFES)

Associate Editor
Applied Ergonomics (2021 –)
Human Factors (2022 –)

Editorial Board Member
International Journal of Human-Computer Interaction (2020 –)

Human Factors (2021 – 2022)

AdHoc Reviewer (journals)
Accident Analysis and Prevention
ACM Transactions on Computer Human Interaction
Acta Psychologica
Advances in Mechanical Engineering
Applied Ergonomics
Attention Perception and Psychophysics
Biological Psychiatry
Canadian Journal of Behavioral Science
Cerebral Cortex
Child Development
IEEE Transactions on Human-Machine Systems
International Journal of Human-Computer Interaction
Journal of Applied Gerontology
Journal of Cognitive Engineering and Decision Making
Journal of Individual Differences
Journal of Gerontology: Psychological Sciences
JoVE
PLOS ONE
Psychology and Violence
Psychonomic Bulletin & Review
Quarterly Journal of Experimental Psychology
Scholar and Feminist Online
Traffic Injury Prevention
Transportmetrica A: Transport Science

Reviewer (conferences)
Conference on Computer Human Interaction (CHI)
FuturePlay
International Conference on Automotive User Interfaces and Interaction Vehicular Applications (AutomotiveUI)
The Annual Human Factors and Ergonomics Society Meetings (HFES)
Transportation Research Board (TRB) Meetings
The Annual Human Factors and Ergonomics Society (HFES) white paper

Reviewer (awards)
Human Factors and Ergonomics Society Alphonse Chapanis Student Paper Award
Human Factors and Ergonomics Society Jerome H. Ely Human Factors Article Award

Co-Chair (award)
Human Factors and Ergonomics Society Jerome H. Ely Human Factors Article Award

AdHoc Reviewer (grants)
United States National Science Foundation (NSF)
The National Cooperative Highway Research Program (NCHRP)
National Aeronautics and Space Administration (NASA)
Natural Sciences and Engineering Research Council of Canada (NSERC)
Netherlands Organisation for Scientific Research (NWO)
Israel Ministry of Science Technology and Space
Swiss National Science Foundation (SNSF)
Dutch Research Council (NWO)

Service to the University

Member, College RPT (Reappointment, Promotion, and Tenure) Committee	2025 – 2027
Reviewer, College Study Abroad Scholarship	2018 –
Member, College Faculty Award Review Committee	2018 – 2019
Psychology department's representative on the International Programs committee	2017 – 2020
Member, College of Humanities and Social Sciences diversity advisory committee	2017 – 2021
Member, Psychology Graduate Student Award Review Committee	2017 – 2020
Member, Psychology Department Undergraduate Curriculum Committee	2016 –
Organizer, Human Factors and Ergonomics Brownbag Series	2015 –
Advisory Board Member, Assistant and Associate Professors' Community at NCSU	2015 – 2017
Adhoc local context expert, NCSU Institutional Review Board	2016
Reviewer of department nomination to the CHASS dissertation award	2015
Speaker, Building Future Faculty Program at NCSU	2015
Member, Psychology Department Award Committee	2014 – 2018

Service to the Community

Invited panelist, Annual Research Symposium of the Laboratory for Analytic Sciences	2018, 2019
Invited panelist, Every Second Matters Distracted Driving Symposium	2018
Invited panelist, workshop by Triangle J Council of Governments (North Carolina)	2017
Member, North Carolina Senior Driver Safety Coalition	2015 –
Treasurer, Carolina Chapter of the Human Factors and Ergonomics Society	2014 – 2015
Technical Program Committee Member, Conference paper program of Future Play	2007 – 2010