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EDUCATION

Ph.D. , Industrial Engineering Purdue University , West Lafayette, IN	2021
M.S. , Psychology Purdue University , West Lafayette, IN	2020
M.S. , Safety Management Indiana University , Bloomington, IN	2016

PROFESSIONAL APPOINTMENTS

Assistant Professor , Department of Industrial & Systems Engineering San Jose State University, San Jose, CA	2021 – Present
Research Associate , Mineta Transportation Institute San Jose State University, San Jose, CA	2021 – Present
Faculty Affiliate , Center on Healthy Aging in Multicultural Population San Jose State University, San Jose, CA	2021 – Present

RESEARCH INTERESTS

Human-automation/robot interaction, cyber-physical human systems, human behavior modeling, automated driving, multimodal displays, human-machine interface, universal design

RESEARCH GRANTS/FUNDING

- **National Science Foundation**. *CRII: HCC: Human-automation Interaction: Assistive and Adaptive Multimodal Interface to Support Older Adults in Complex Automated Systems* (Sole PI; \$174,800). 2022 – 2024.
- **U.S. Department of Transportation**. *Mental States & Machine: Enhancing Driver Engagement in Automated Vehicles for Safer Transitions* (PI; \$100,000). 2023 – 2024.
- **SJSU College of Engineering Small Group Project**. *Enhancing Automated Vehicle Takeover: Integrating Age, Mental State, and Assistive Technologies* (PI; \$50,000). 2024.
- **Mineta Transportation Institute Emerging Leaders Seed Grant – U.S. Department of Transportation**. *Enhancing Road Safety by Addressing Hazards from Rental Vehicles* (Co-PI; \$6,736). 2023 – 2024.
- **Honda Research Institute USA**. *Measuring Wellbeing in Hybrid Mobility* (Sole PI; \$53,800). 2023.
- **American Honda Motor Company**. *Investigating Driver Safety Training in the Age of Autonomous Vehicles using Wearable Robots* (PI; \$25,000). 2023 – 2024.
- **SJSU Research, Scholarship, and Creativity Activity (RSCA) Level-Up Grant**. *Modeling Mind Wandering and Task Performance in Semi-Autonomous Driving* (PI; \$20,000). 2022 – 2023.
- **SJSU College of Engineering Small Group Project**. *A Teleoperated Robotic Training System for Percutaneous Needle Insertion Proficiency* (Co-PI; \$100,000). 2022-2023.
- **Mineta Transportation Institute Emerging Leaders Seed Grant – U.S. Department of Transportation**.

Investigating the Effects of Alcohol Consumption on Manual and Automated Driving (PI; \$6,532). 2022 – 2023.

- **Honda Research Institute USA.** *Adaptive Driving Style for Automated Driving* (Sole PI; \$63,600). 2021 – 2022.
- **Mineta Transportation Institute Emerging Leaders Seed Grant – U.S. Department of Transportation.** *Exploring the Effects of Individual Differences on Tactile Display Perception in Automated Vehicles* (Sole PI; \$6,549). 2021 – 2022.
- **Mineta Transportation Institute Emerging Leaders Seed Grant – U.S. Department of Transportation.** *Investigating the Usability and Effectiveness of Public Transportation Technology in Older Adults during a Public Health Crisis* (PI; \$6,547). 2021 – 2022.
- **Link Foundation Fellowship in Modeling, Simulation, & Training.** *Using Advanced Driving Simulation and Vibrotactile Cues to Train Older Drivers to Interact with Next-Generation Autonomous Vehicles* (Link Foundation Fellow; \$30,000). 2020 – 2021.
- **HFES Augmented Cognition Technical Group Student Grant Award.** *Physiological Responses Predict Mind Wandering during Semi-Autonomous Driving: Implications for Takeover Performance* (Sole PI; \$500). 2020.
- **HFES Aging Technical Group Student Research Scholarship.** *The Influence of Non-chronological Age Factors on Mental States and Takeover Performance in Next-Generation Autonomous Driving* (Sole PI; \$500). 2019 – 2020

PUBLICATIONS

Peer-Reviewed Journal Articles

1. Martinez, K. D., & **Huang, G.** (2024). From young to old: The effects of information presentation type, multimodal display, and age on situation awareness and processing time in automated vehicles. *Transportation Research Part F: Traffic Psychology and Behaviour*, 103, 128-140. <https://doi.org/10.1016/j.trf.2024.04.002>
2. Dong, M., Lee, Y. Y., Cha, J. S., & **Huang, G.** (2024). Drinking and driving: A systematic review of the impacts of alcohol consumption on manual and automated driving performance. *Journal of Safety Research*. <https://doi.org/10.1016/j.jsr.2024.01.006>
3. Sridhar, H., **Huang, G.**, Thorpe, A., Oishi, M., & Pitts, B. J. (2024). Characterizing the effect of mind wandering on partially autonomous braking dynamics. *ACM Transactions on Cyber-Physical Systems*. <https://doi.org/10.1145/3653678>
4. Lee, Y., Dong, M., Krishnamoorthy, V., Akash, K., Misu, T., Zheng, Z., & **Huang, G.** (2023). Driving Aggressively or Conservatively? Investigating the Effects of Automated Vehicle Interaction Type and Road Event on Drivers' Trust and Preferred Driving Style. *Human Factors*. <https://doi.org/10.1177/00187208231181199>
5. Etu, E. E., Sureshababu, K., Summerville, S., Parmar, A., & **Huang, G.** (2023). What Changes the Travel Pattern: A National Survey on the Impacts of the COVID-19 Pandemic on Older Adults' Public Transportation Usage. *Journal of Transport & Health*. <https://doi.org/10.1016/j.jth.2023.101718>
6. Werner, L., **Huang, G.**, & Pitts, B. J. (2023). Smart Speech Systems: A Focus Group Study on Older Adult User and Non-User Perceptions of Speech Interfaces. *International Journal of Human-Computer Interaction*. <https://doi.org/10.1080/10447318.2022.2050541>
7. **Huang, G.**, & Pitts, B. J. (2022). To Inform or to Instruct? An Evaluation of Meaningful Vibrotactile Patterns to Support Automated Vehicle Takeover Performance. *IEEE Transactions on Human-Machine*

- Systems*. <https://doi.org/10.1109/THMS.2022.3205880>
8. Martinez, K. D., & **Huang, G.** (2022). In-Vehicle Human Machine Interface: Investigating the Effects of Tactile Displays on Information Presentation in Automated Vehicles. *IEEE Access*. <https://doi.org/10.1109/ACCESS.2022.3205022>
 9. **Huang, G.**, Hung, Y. H., Proctor, R. W., & Pitts, B. J. (2022). Age is more than just a number: The relationship among age, non-chronological age factors, self-perceived driving abilities, and autonomous vehicle acceptance. *Accident Analysis and Prevention*. <https://doi.org/10.1016/j.aap.2022.106850>
 10. **Huang, G.**, & Pitts, B. J. (2022). Takeover requests for automated driving: The effects of signal direction, lead time, and modality on takeover performance. *Accident Analysis and Prevention*. <https://doi.org/10.1016/j.aap.2021.106534>
 11. **Huang, G.**, & Pitts, B. J. (2022). The Effects of Age and Physical Exercise on Multimodal Signal Responses: Implications for Semi-autonomous Vehicle Takeover Requests. *Applied Ergonomics*, 98. <https://doi.org/10.1016/J.APERGO.2021.103595>
 12. **Huang, G.**, Luster, M., Karagol, I., Park, J. W., & Pitts, B. J. (2020). Self-Perception of Driving Abilities in Older Age: A Systematic Review. *Transportation Research Part F: Traffic Psychology and Behaviour*, 74, 307–321. <https://doi.org/10.1016/j.trf.2020.08.020>
 13. Smith, T. D., DeJoy, D. M., Dyal, M. A., & **Huang, G.** (2019). Impact of work pressure, work stress and work–family conflict on firefighter burnout. *Archives of Environmental & Occupational Health*, 74(4), 215-222. <https://doi.org/10.1080/19338244.2017.1395789>

Peer-Reviewed Conference Proceedings

1. Huynh, J., Duong, H. X., **Huang, G.**, Etu, E. E., Quintero, D., & Jiang, L. (2023). Modular Tactile End Effector Design for Enhancing Haptic Feedback in Teleoperated Robotic Systems. In *ASME International Mechanical Engineering Congress and Exposition* (Vol. 87639, p. V006T07A046). American Society of Mechanical Engineers. <https://doi.org/10.1115/IMECE2023-113969>
2. **Huang, G.**, & Pitts, B. J. (2023). Tactile Displays: The Effects of Location and Intensity on Automated Vehicle Takeover Performance. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/21695067231192212>
3. Zhang, Z., Luo, Y., & **Huang, G.** (2023). Empowering Independence: A Scoping Review on Innovations in Smart Home Technology for People with Motor Disabilities. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/21695067231192266>
4. Lammert, K., **Huang, G.**, Etu, E. E., Quintero, D., & Jiang, L. (2023). Human-Centered Design: A Haptic Robotic-Based Leader-Follower Driving Training System to Improve Driving Skills and Enhance Safety. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/21695067231192452>
5. Dong, M., Etu, E. E., Jiang, L., & **Huang, G.** (2023). Exploring the Impacts of Mind Wandering on Driver Takeover in Automated Vehicles: A Comparative Study of Multimodal Displays. In *Adjunct Proceedings of the 15th International Conference on Automotive User Interfaces and Interactive Vehicular Applications* (pp. 93-98). <https://doi.org/10.1145/3581961.3609882>
6. Martinez, K., & **Huang, G.** (2022). Designing and Evaluating Meaningful Tactile Displays to Assist Takeover in Automated Vehicles. In *Adjunct Proceedings of the 14th International Conference on Automotive User Interfaces and Interactive Vehicular Applications* (pp. 34-38). <https://doi.org/10.1145/3544999.3552319>

7. Shah, M., Engelsen, A. M., & **Huang, G.** (2022). A Systematic Review of Older Adults' Interactions with Smart Home Technology. In *2022 IEEE 3rd International Conference on Human-Machine Systems (ICHMS)*. IEEE. <https://doi.org/10.1109/ICHMS56717.2022.9980777>
 8. Sajedinia, Z., Akash, K., Zheng, Z., Misu, T., Dong, M., Krishnamoorthy, V., Martinez, K., Sureshbabu, K., & **Huang, G.** (2022). Investigating Users' Preferences in Adaptive Driving Styles for Level 2 Driving Automation. In *14th International Conference on Automotive User Interfaces and Interactive Vehicular Applications* (pp. 162-170). <https://doi.org/10.1145/3543174.3546088>
 9. Zheng, Z., Akash, K., Misu, T., Krishnamoorthy, V., Dong, M., Lee, Y., & **Huang, G.** (2022). Identification of Adaptive Driving Style Preference through Implicit Inputs in SAE L2 Vehicles. In *Proceedings of the 2022 International Conference on Multimodal Interaction (ICMI)* (pp. 468-475). <https://doi.org/10.1145/3536221.3556637>
 10. Lee, Y. Y., Dong, M., Krishnamoorthy, V., Akash, K., Zheng, Z., Misu, T., & **Huang, G.** (2022). The Impacts of Adaptive Driving Styles on Trust in Level 2 Automated Vehicles. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 66, No. 1, pp. 345-345). Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1071181322661327>
 11. Martinez, K. D., & **Huang, G.** (2022). The Effects of Tactile Display on Automated Vehicle Takeover: A Literature Review. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 66, No. 1, pp. 1305-1309). Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1071181322661391>
 12. Dong, M., Lee, Y., Cha, J. S., & **Huang, G.** (2022). Effects of Alcohol Consumption on Driving: A Systematic Review. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 66, No. 1, pp. 1481-1481). Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1071181322661328>
 13. Summerville, S., Etu, E. E., Sureshbabu, K., Parmar, A., & **Huang, G.** (2022). Exploring the Use of Public Transportation Among Older Adults During COVID-19 Pandemic: A Pilot Study. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 66, No. 1, pp. 8-12). Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1071181322661340>
- ***Arnold M. Small Best Student Paper Award**
14. **Huang, G.**, & Pitts, B. J. (2021). Driver-Vehicle Interaction: The Effects of Physical Exercise and Takeover Request Modality on Automated Vehicle Takeover Performance between Younger and Older Drivers. In *2021 IEEE 2nd International Conference on Human-Machine Systems (ICHMS)* (pp. 1-4). IEEE. <https://doi.org/10.1109/ICHMS53169.2021.9582642>
 15. **Huang, G.**, & Pitts, B. J. (2021). Automated Vehicle Takeover: A Pilot Study on the Effects of Age, Physical exercise, and Takeover Request Modality on Post-takeover Performance. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. <https://doi.org/10.1177/1071181321651012>
 16. **Huang, G.**, Hung, Y. H., Proctor, R. W., & Pitts, B. J. (2021). Non-Chronological Age Factors and Self-perceived Driving Abilities: A Survey Study of Autonomous Vehicle Acceptance. *Technology, Mind, and Behavior*. <https://doi.org/10.1037/tms0000090>
 17. **Huang, G.**, & Pitts, B. (2020). Age-Related Differences in Takeover Request Modality Preferences and Attention Allocation During Semi-autonomous Driving. In *International Conference on Human-Computer Interaction* (pp. 135-146). Springer, Cham. https://doi.org/10.1007/978-3-030-50252-2_11
 18. **Huang, G.**, & Pitts, B. J. (2020). The Effects of Engagement in Physical Exercise on Semi-autonomous Takeover Request Perception between Younger and Older Adults. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 64, No. 1, pp. 27-27). Sage CA: Los Angeles, CA: SAGE

Publications. <https://doi.org/10.1177/1071181320641007>

19. **Huang, G.**, Petersen, C., & Pitts, B. J. (2020). The Impact of Mental States on Semi-autonomous Driving Takeover Performance: A Systematic Review. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 64, No. 1, pp. 1372-1376). Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1071181320641328>
20. **Huang, G.**, Steel, C., Zhang, X., & Pitts, B. (2019). Multimodal Cue Combinations: A Possible Approach to Designing In-Vehicle Takeover Requests for Semi-Autonomous Driving. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 63, No. 1, pp. 1739-1743). Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1071181319631053>
21. **Huang, G.**, Liang, N., Wu, C., & Pitts, B. (2019). The Impact of Mind Wandering on Signal Detection, Semi-autonomous Driving Performance, and Physiological Responses. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 63, No. 1, pp. 2051-2055). Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1071181319631015>
22. Werner, L., **Huang, G.**, & Pitts, B. J. (2019). Automated Speech Recognition Systems and Older Adults: A Literature Survey and Synthesis. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 63, No. 1, pp. 42-46). Sage CA: Los Angeles, CA: SAGE Publications. <https://doi.org/10.1177/1071181319631121>
23. **Huang, G.**, & Pitts, B. (2019). Automated Speech Recognition Technology to Support in Flight Weather-related Communication for GA Pilots. In *20th International Symposium on Aviation Psychology*. (pp. 468-473). https://corescholar.libraries.wright.edu/isap_2019/79

Technical Reports & Thesis

1. Dong, M., Lee, Y., Cha, J., & **Huang, G.** (2024). *Investigating the Effects of Alcohol Consumption on Manual and Automated Driving: A Systematic Review*. Mineta Transportation Institute. <https://doi.org/10.31979/mti.2024.2302>
***Featured in the Transportation Research Board (TRB) Weekly, National Academies of Sciences, Engineering, and Medicine. Newsletter – 240402.**
2. Martinez, K., & **Huang, G.** (2022). *Exploring the Effects of Meaningful Tactile Display on Perception and Preference in Automated Vehicles*. Mineta Transportation Institute. <https://doi.org/10.31979/mti.2022.2164>
3. Sureshbabu, K., Etu, E., Summerville, S., Parmar, A., & **Huang, G.** (2022). *Exploring the Use of Public Transportation Among Older Adults During the COVID-19 Pandemic: A National Survey*. Mineta Transportation Institute. <https://doi.org/10.31979/mti.2022.2204>
***Featured in the Transportation Research Board (TRB) Weekly, National Academies of Sciences, Engineering, and Medicine. Newsletter – 230103.**
4. **Huang, G.** (2021). *Aging and Automation: Non-chronological Age Factors and Takeover Request Modality Predict Transition to Manual Control Performance during Automated Driving* (Doctoral dissertation). Purdue University. <https://doi.org/10.25394/PGS.14879706.v1>
5. **Huang, G.** (2021). *Using Advanced Driving Simulation and Vibrotactile Cues to Train Drivers to Interact with Next-Generation Autonomous Vehicles*. <https://repository.lib.fit.edu/handle/11141/3439>

Patent

1. Xi, Z., Zhang, J., Yang, J., **Huang, G.** (2012). Tapered jet foam sol generating device for controlling coal dust at transferring point of conveyor belt

PRESENTATIONS

Invited Lectures, Panels, & Keynote Addresses

1. **Huang, G.** (2023). Universal Interface Design for Next-Generation Automated Vehicles: Multimodal Information Integration and Evaluation. IT Distinguished Colloquium Series. Kennesaw State University. November.
2. **Huang, G.** (2023). Next-generation Human-Machine Interface in Automated Vehicles for Universal Drivers. RSCA in Five: Faculty Short Talks. San Jose State University. April.
3. **Huang, G.** (2022). Multimodal Information Presentation in Next-Generation Automated Vehicles. Invited seminar. College of Charleston. November.
4. **Huang, G.** (2022). Visual, Auditory, or Tactile? The Design and Evaluation of Next-Generation In-Vehicle Human-Machine Interfaces. Brownbag Seminar Series. North Carolina State University. October.
5. **Huang, G.** (2022). Human-Automation and Human-Robot Interactions. Invited lecture in CS 789: Internet of Things. The University of Nevada. Las Vegas, NV. April.
6. **Huang, G.** (2019). Smart Home Technologies for Older Adults. Invited lecture in IE 590: Human Factors of Gerontechnology. Purdue University. West Lafayette, IN. October.

Academic Presentations and Posters

1. Huynh, J., Duong, H., **Huang, G.**, Etu, E. E., Quintero, D., & Jiang, L. (**presenter**) (2023). Modular Tactile End Effector Design for Enhancing Haptic Feedback in Teleoperated Robotic Systems. Oral presentation given at the 2023 *ASME International Mechanical Engineering Congress and Exposition*. New Orleans, Louisiana. November.
2. **Huang, G.**, Zang, J. (**presenter**), & Pitts, B. J. (2023). Tactile Displays: The Effects of Location and Intensity on Automated Vehicle Takeover Performance. Poster presented at the 67th *International Annual Meeting of the Human Factors and Ergonomics Society*. Washington, DC. October.
3. Zhang, Z. (**presenter**), Luo, Y., & **Huang, G.** (2023). Empowering Independence: A Scoping Review on Innovations in Smart Home Technology for People with Motor Disabilities. Poster presented at the 67th *International Annual Meeting of the Human Factors and Ergonomics Society*. Washington, DC. October.
4. Lammert, K., **Huang, G.**, Zhang, Z. (**presenter**), Etu, E. E., Quintero, D., & Jiang, L. (2023). Human-Centered Design: A Haptic Robotic-Based Leader-Follower Driving Training System to Improve Driving Skills and Enhance Safety. Poster presented at the 67th *International Annual Meeting of the Human Factors and Ergonomics Society*. Washington, DC. October.
5. Dong, M. (**presenter**), Etu, E. E., Jiang, L., & **Huang, G.** (2023). Exploring the Impacts of Mind Wandering on Driver Takeover in Automated Vehicles: A Comparative Study of Multimodal Displays. Poster presented at the 15th *International Conference on Automotive User Interfaces and Interactive Vehicular Applications*. Ingolstadt, Germany. September.
6. Dong, M. (**presenter**), Lee, Y., Krishnamoorthy, V., Akash, K., Zheng, Z., Misu, T., & **Huang, G.** (2022). Driving Aggressively or Conservatively? Investigating the Effects of Adaptive Driving Styles and Event Type on Trust in Partially Automated Vehicles. Poster presented at the 2022 *SJSU GIS Day Poster Presentation Competition co-sponsored by SAVi and Mineta Transportation Institute (MTI)*. San Jose, CA. November. ***The 3rd Place Winner**
7. Zheng, Z., Akash, K. (presenter), Misu, T., Krishnamoorthy, V., Dong, M., Lee, Y., & **Huang, G.** (2022). Identification of Adaptive Driving Style Preference through Implicit Inputs in SAE L2 Vehicles. Poster presented at the 24th *ACM International Conference on Multimodal Interaction (ICMI)*. Bengaluru (Bangalore), India. November.
8. Lee, Y., Dong, M. (presenter), Krishnamoorthy, V., Akash, K., Zheng, Z., Misu, T., & **Huang, G.** (2022).

- The Impacts of Adaptive Driving Styles on Trust in Level 2 Automated Vehicles. Oral presentation given at the *66th International Annual Meeting of the Human Factors and Ergonomics Society*. Atlanta, GA. October.
9. Dong, M. (presenter), Lee, Y., Cha, J., & **Huang, G.** (2022). Effects of Alcohol Consumption on Driving: A Systematic Review. Oral presentation given at the *66th International Annual Meeting of the Human Factors and Ergonomics Society*. Atlanta, GA. October.
 10. Summerville, S. (presenter), Etu, E., Sureshbabu, K., Parmar, A., & **Huang, G.** (2022). Exploring the Use of Public Transportation Among Older Adults During COVID-19 Pandemic: A Pilot Study. Oral presentation given at the *66th International Annual Meeting of the Human Factors and Ergonomics Society*. Atlanta, GA. October.
 11. Martinez, K. (presenter), & **Huang, G.** (2022). The Effects of Tactile Display on Automated Vehicle Takeover: A Literature Review. Poster presented at the *66th International Annual Meeting of the Human Factors and Ergonomics Society*. Atlanta, GA. October.
 12. Sajedinia, Z., Akash, K., Zheng, Z., Misu (presenter), T., Dong, M., Krishnamoorthy, V., Martinez, K., Sureshbabu, K., & **Huang, G.** (2022). Investigating Users' Preferences in Adaptive Driving Styles for Level 2 Driving Automation. Oral presentation given at the *14th International Conference on Automotive User Interfaces and Interactive Vehicular Applications*. Seoul, South Korea. September.
 13. Martinez, K. (presenter), & **Huang, G.** (2022). Designing and Evaluating Meaningful Tactile Displays to Assist Takeover in Automated Vehicles. Poster presented at the *14th International Conference on Automotive User Interfaces and Interactive Vehicular Applications*. Seoul, South Korea. September.
 14. **Huang, G. (presenter)** (2022). Pressing Problems and Emerging Solutions in Aging Research. Oral presentation given at the *2022 Collaborative Symposium held by SJSU Center for Healthy Aging in Multicultural Populations (CHAMP) and Stanford Aging and Ethnogeriatrics (SAGE) Research Center*. (Virtual). April.
 15. **Huang, G. (presenter)**, Hung, Y. H., Proctor, R. W., & Pitts, B. J. (2021). Non-Chronological Age Factors and Self-perceived Driving Abilities: A Survey Study of Autonomous Vehicle Acceptance. Oral presentation given at the *2021 Technology, Mind and Society Conference*. (Virtual). November.
 16. **Huang, G. (presenter)**, & Pitts, B. (2021). Automated Vehicle Takeover: A Pilot Study on the Effects of Age, Physical exercise, and Takeover Request Modality on Post-takeover Performance. Oral presentation given at the *65th International Annual Meeting of the Human Factors and Ergonomics Society*. Baltimore, MD. October.
 17. **Huang, G. (presenter)** (2021). Driver-Vehicle Interaction: The Effects of Physical Exercise and Takeover Request Modality on Automated Vehicle Takeover Performance between Younger and Older Drivers. Oral presentation given at the *2nd IEEE International Conference on Human-Machine Systems*. Magdeburg, Germany (Virtual). September.
 18. **Huang, G. (presenter)** (2021). Age is Not Defined by a Number: Effects of Physical Exercise and Takeover Request Modality on Semi-autonomous Vehicle Takeover Performance. Oral presentation given at the *2nd Annual Human Factors and Ergonomics Society Student Chapter Conference*. Virtual. April.
 19. **Huang, G. (presenter)**, & Pitts, B. (2020). The Effects of Engagement in Physical Exercise on Semi-autonomous Takeover Request Perception between Younger and Older Adults. Oral presentation given at the *64th International Annual Meeting of the Human Factors and Ergonomics Society*. Chicago, IL (Virtual). October.
 20. **Huang, G.**, Petersen (presenter), C., & Pitts, B. (2020). The Impact of Mental States on Semi-autonomous Driving Takeover Performance: A Systematic Review. Poster presented at the *64th International Annual*

- Meeting of the Human Factors and Ergonomics Society*. Chicago, IL (Virtual). October.
21. **Huang, G. (presenter)**, & Pitts, B. J. (2020). Age-Related Differences in Takeover Request Modality Preferences and Attention Allocation During Semi-autonomous Driving. Oral presentation given at the *22nd International Conference on Human-Computer Interaction*. Copenhagen, Denmark (Virtual). July.
 22. **Huang, G. (co-presenter)**, Liang, N., & Pitts, B. J. (2020). Physiological Monitoring During Autonomous Driving. Oral presentation given at the *106th Purdue Road School Transportation Conference and Expo*. West Lafayette, IN. March.
 23. Park, J. (presenter), **Huang, G.**, & Pitts, B. J. (2019). Self-Perception of Manual Driving Abilities in Older Age: A Systematic Review. Poster presented at *the Annual Fall Undergraduate Research Expo*. West Lafayette, IN. November.
 24. **Huang, G. (presenter)**, Steel, C., Zhang, X., & Pitts, B. J. (2019). Multimodal Cue Combinations: A Possible Approach to Designing In-Vehicle Takeover Requests for Semi-Autonomous Driving. Oral presentation given at the *63rd International Annual Meeting of the Human Factors and Ergonomics Society*. Seattle, WA. October.
 25. **Huang, G. (presenter)**, Liang, N., Wu, C., & Pitts, B. J. (2019). The Impact of Mind Wandering on Signal Detection, Semi-autonomous Driving Performance, and Physiological Responses. Oral presentation given at the *63rd International Annual Meeting of the Human Factors and Ergonomics Society*. Seattle, WA. October.
 26. Gonzales, A. (presenter), **Huang, G.**, Pitts, B. J. (2019). Augmented Reality in Semi-Autonomous Driving: The Effect of Warning Signal Format and Perceived Urgency on Takeover Performance. Poster presented at *Purdue Summer Undergraduate Research Fellowship Research Symposium*. West Lafayette, IN. August.
 27. Richards, M. (presenter), **Huang, G.**, Karagol, I., Pitts, B. J. (2019). Perception versus Reality: How do Older Drivers Self-perceive their Own Driving Abilities?. Poster presented at *Purdue Summer Research Opportunity Program's (SROP) Research Poster Symposium and Reception*. West Lafayette, IN. July.
 28. **Huang, G. (presenter)**, & Pitts, B. J. (2019). Predicting Mind Wandering during Semi-autonomous Driving and Exploring Potential Mitigation Strategies. Oral presentation given at the *1st Annual Conference on Next-Generation Transport Systems (NGTS-2019)*. West Lafayette, IN. May. **Won Outstanding Presenter Award.**
 29. **Huang, G. (presenter)**, & Pitts, B. (2019). Automated Speech Recognition Technology to Support in Flight Weather-related Communication for GA Pilots. Oral presentation given at the *20th International Symposium on Aviation Psychology*. Dayton, OH. May.
 30. **Huang, G. (co-presenter)**, Liang, N., & Pitts, B. J. (2019). Assisted-Driving & Autonomous Vehicle Systems: Human Factors Considerations in Next-Generation Transportation. Poster presented at the *105th Purdue Road School Transportation Conference and Expo*. West Lafayette, IN. March.
 31. **Huang, G. (presenter)**, & Pitts, B. J. (2018). Assessing the Capability of Automated Speech Recognition Weather Information Interfaces in GA Flight. Poster presented at the *2018 The Partnership to Enhance General Aviation Safety, Accessibility and Sustainability (PEGASAS) Annual Meeting*. West Lafayette, IN. May.
 32. Smith, T.D. & **Huang, G. (co-presenter)** (2017). Bolstering occupational safety and health outcomes through effective multi-level leadership. Oral Presentation given at the *2017 National Safety Council Congress & Expo*. Indianapolis, IN. September.

AWARDS AND HONORS

- NSF ADVANCE KIND iChange Supplemental Professional Development Grant Award 2024
- RSCA Faculty Mentor Award of Excellence, SJSU 2023
- Faculty RSCA Assigned Time Award 2023
- Spring 2023 University Grants Academy Award 2023
- SJSU 2022/23 Student RSCA Fellowship Faculty Mentor Award 2022
- STAR Fellow Faculty Mentor Award 2022
- College of Engineering Faculty Professional Development Grant Award, SJSU 2022
- HFES Student Member with Honors Award 2020
- Dr. Theodore J. and Isabel M. Williams Fellowship in Industrial Engineering 2020
- Purdue Graduate School Incentive Grant Award 2020
- HFES Honor Student of Purdue Award 2020
- Purdue Graduate Student Government Professional Grant 2019
- Graduate Student Mentor of the Summer, Purdue University 2019
- Outstanding Speaker Award, 1st Annual Conference on Next-Generation Transport Systems 2019
- Travel Grant, School of Industrial Engineering, Purdue University 2019
- Outstanding Undergraduate Graduation Thesis (Design), Tianjin 2014
- Honor Student Award, Tianjin, China 2014
- People Scholarship, Tianjin, China 2010-2013
- Freshman Scholarship, Tianjin, China 2011

TEACHING EXPERIENCE

San Jose State University

- ISE – 211 Experimental Design for Human Factors Engineering (graduate level)
- ISE – 210 Human Factors/Ergonomics (graduate level)
- ISE – 200 Financial Methods for Engineers (graduate level)
- ISE – 102 Engineering Economic Systems (undergraduate level)

Indiana University Bloomington

- SPH – H180 Stress Prevention & Management (undergraduate level)
- SPH – S151 Legal Aspect of Safety (undergraduate level)
- SPH – F255 Human Sexuality (undergraduate level; graduate teaching assistant)
- SPH – F341 Effects of Divorce on Children (undergraduate level; graduate teaching assistant)

MENTORING

Graduate Students

- Vidya Krishnamoorthy, Industrial & Systems Engineering (graduated in Spring 2022)
- Kimberly Martinez, Industrial & Systems Engineering (graduated in Spring 2023)
- Miaomiao Dong, Industrial & Systems Engineering (expected Spring 2023)
- Zhi Zhang, Industrial & Systems Engineering (expected Spring 2024)
- Aries Chu, Industrial & Systems Engineering (expected Spring 2025)
- Wei-Hsiang Lo, Industrial & Systems Engineering (expected Spring 2025)
- Nidhi Deshpande, Industrial & Systems Engineering (expected Spring 2025)
- Poorva Jain, Industrial & Systems Engineering (expected Spring 2025)

Undergraduate Students

- Brenna Nettles-Miller, Industrial & Systems Engineering (graduated Spring 2023)
- Sanvee Boutuivi Kouam Pedro, Mechanical Engineering (expected Spring 2025)

Awards with mentored students

- Zhi Zhang. 2024 Donald Beall-Rockwell Award for Engineering Accomplishment. 2024
- Miaomiao Dong. 2023 Donald Beall-Rockwell Award for Engineering Accomplishment. 2023
- Miaomiao Dong, Minal Shah. 2022-23 Davidson Student Scholar, College of Engineering, SJSU. 2022
- Kimberly Martinez, Miaomiao Dong, Minal Shah. 2022 STAR Fellowship Awards. 2022
- Kimberly Martinez. 2022-23 Research and Innovation Student RSCA Fellowship. 2022
- Kimberly Martinez. 2022 Donald Beall-Rockwell Award for Engineering Accomplishment. 2022

SERVICE/ LEADERSHIP DEVELOPMENT

Professional Service

- **Journal Reviewer** 2020 – Present
 - *Accident Analysis and Prevention*
 - *Applied Ergonomics*
 - *Applied Sciences*
 - *Behaviour & Information Technology*
 - *Ergonomics*
 - *Human Factors*
 - *Human Factors and Ergonomics in Manufacturing & Service Industries*
 - *IEEE Transactions on Human-Machine Systems*
 - *IEEE Transactions on Intelligent Transportation Systems*
 - *Innovation in Aging*
 - *International Journal of Environmental Research and Public Health*
 - *International Journal of Human-Computer Interaction*
 - *International Journal of Human-Computer Studies*
 - *International Journal of Industrial Ergonomics*
 - *Gerontechnology*
 - *Micromachines*
 - *Sustainability*
 - *Transport Reviews*
 - *Transportation Research Part F: Traffic Psychology and Behaviour*
- **Conference Proceedings Reviewer** 2019 – Present
 - ACM Conference on Human Factors in Computing Systems (CHI)
 - Human Factors and Ergonomics Annual Meeting (HFES)
 - IEEE International Conference on Human-Machine Systems (IEEE ICHMS)
 - International ACM Conference on Automotive User Interfaces (AutoUI)
 - IFAC Workshop on Cyber-Physical and Human Systems (CPHS)
 - Asia Human-Computer Interaction Symposium (AHMIS)
- **Panelist** 2023 – Present
 - National Science Foundation (NSF)
- **Conference Organizing/Steering Committee Chair/Member**

- 2024 International Advances in Intelligent Robotics and Industrial Automation Symposium (AIRIA 2024). Technical Program Committee
- 2020 1st Annual HFES Student Chapter Conference. Committee Chair
- **Conference Session Chair/Co-Chair**
 - 2023 HFES Annual Meeting Surface Transportation Technical Group
 - 2022 HFES Annual Meeting Surface Transportation Technical Group
 - 2021 HFES Annual Meeting Aging Technical Group
 - 2019 HFES Annual Meeting Perception and Performance Technical Group
 - 2019 HFES Annual Meeting Human Performance Modeling Technical Group
- **Award Committee/Reviewer** 2021 – Present
 - HFES Surface Transportation Technical Group Best Student Paper Award (2022)
 - Council of University Transportation Centers (CUTC) Student Award (2022)
 - HFES Aging Technical Group Student Research Scholarship (2021)
 - HFES Augmented Cognition Technical Group Student Grant Award (2021)
- **Program Chair Elect**, HFES Aging Technical Group 2022 – Present
- **Secretary/Treasurer**, HFES Aging Technical Group 2021 – 2022
- **Volunteer**, HFES Fellows Task Force 2020
- **Student Volunteer**, the HFES Annual Meeting 2019

University-related Service

- **Faculty Advisor**, HFES San Jose State University Student Chapter (won the national Gold award for the year of 2021 – 2022) 2021 – Present
- **Research Committee**, Charles W. Davidson College of Engineering, SJSU 2021 – Present
- **Chair Review Committee**, Dept. of Industrial and Systems Engineering, SJSU 2022
- **Judge Panel Member**, Spartan Step Up Conference, SJSU 2021
- **Lab Manager**, MhanCE Research Lab, Purdue University 2017 – 2021
- **Session Chair**, Purdue Summer Undergraduate Research Fellowship Research e-Symposium 2020
- **Co-President**, Human Factors & Ergonomics Society Purdue Student Chapter 2019 – 2020
- **Judge**, Purdue Summer Undergraduate Research Fellowship Research Symposium 2019

Community Service

- **Tech Team Volunteer**, Center on Aging and the Life Course (CALC), Purdue University 2019 – 2020
 - *Solving electronic equipment problems at senior living facilities*
- **Volunteer**, Purdue Space Day 2019
 - *STEM education outreach program for K-12 students*

CERTIFICATE/TRAINING

-
- Faculty Mentor Boot Camp – Diversity, Equity, and Inclusion in Helping, Mentoring Relationships, SJSU 2022
 - Certificate of Creating an Inclusive and Supportive Online Learning Environment, SJSU 2022
 - Certificate of Purposeful Pivoting for Academic Continuity Course, SJSU 2022
 - Certificate of Foundations in College Teaching, Purdue University 2019

PROFESSIONAL MEMBERSHIPS

-
- Human Factors and Ergonomics Society (HFES) 2017 – Present
 - Aging Technical Group
 - Augmented Cognition Technical Group
 - Cognitive Engineering and Decision Making Technical Group
 - Perception and Performance Technical Group
 - Surface Transportation Technical Group
 - Association for Computing Machinery (ACM) 2023 – Present
 - Institute of Electrical and Electronics Engineers (IEEE) 2020 – Present
 - International Society of Gerontechnology 2020 – Present
 - National Safety Council (NSC) 2019 – Present
 - American Society of Safety Professionals (ASSP) 2014 – 2017

WORK EXPERIENCE

Next-generation Human-systems and Cognitive Engineering (NHanCE) Lab	West Lafayette, IN
<i>Graduate Research Assistant, Advisor: Dr. Brandon J. Pitts</i>	Aug 2017 – June 2021
Human Performance Lab (HPL)	West Lafayette, IN
<i>Graduate Student Research Fellow; Advisor: Dr. Robert Proctor</i>	Aug 2018 – June 2021
Department of Applied Health Science	Bloomington, IN
<i>Graduate Research Assistant; Advisor: Dr. Todd Smith</i>	Aug 2015 – May 2016
Shanghai Yuanke Enterprise Management Consulting Co. Ltd.	Shanghai, China
<i>Assistant Safety Consultant (Intern)</i>	Feb 2014 – May 2014
Bureau of Safety Supervision, Government of Tianjin Binhai District	Tianjin, China
<i>Summer Research Intern</i>	Jun 2012 – Aug 2012

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