

## Gaojian Huang, Ph.D.

Industrial and Systems Engineering  
Charles W. Davidson College of Engineering  
San Jose State University  
San Jose, CA 95192-0080

Email: gaojian.huang@sjsu.edu  
Phone: (408) 924 - 4010  
Fax: (408) 924 - 4040  
Website: <https://www.batlab.info/>

### EDUCATION

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| <b>Ph.D.</b> , Industrial Engineering<br><b>Purdue University</b> , West Lafayette, IN | 2021 |
| <b>M.S.</b> , Psychology<br><b>Purdue University</b> , West Lafayette, IN              | 2020 |
| <b>M.S.</b> , Safety Management<br><b>Indiana University</b> , Bloomington, IN         | 2016 |

### PROFESSIONAL APPOINTMENTS

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

### RESEARCH INTERESTS

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

### RESEARCH GRANTS/FUNDING

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- **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.
- **Industry**. *More details will be coming soon* (Sole PI; \$53,800). 2023.
- **Honda Corporate Foundation**. *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

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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

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## PUBLICATIONS

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### Peer-Reviewed Journal Articles

1. **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>
2. 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>
3. **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>
4. **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>
5. **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>
6. Werner, L., **Huang, G.,** & Pitts, B. J. (2022). 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.,** 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>
8. 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>
9. Lee, Y., Dong, M., Krishnamoorthy, V., Akash, K., Zheng, Z., Misu, T., & **Huang, G.** (Minor revision). Driving Aggressively or Conservatively? Investigating the Effects of Adaptive Driving Styles and Event Type on Trust in Partially Automated Vehicles. *Human Factors*.

10. Dong, M., Lee, Y., Cha, J., & **Huang, G.** (Under review). Drinking and Driving: A Systematic Review of the Impacts of Alcohol Consumption on Manual and Automated Driving Performance.
11. Etu, E., Sureshbabu, K., Summerville, S., Parmar, A., & **Huang, G.** (Under review). What Changes the Travel Pattern: A National Survey on the Impacts of the COVID-19 Pandemic on Older Adults' Public Transportation Usage.
12. Sridhar, H., **Huang, G.**, Thorpe, A., Oishi, M., & Pitts, B. J. (Under review). Characterizing the Effect of Mind-wandering on Partially Autonomous Braking Dynamics.

#### Peer-Reviewed Conference Proceedings

1. 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>
  2. Shah, M., Engelsens, 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>
  3. 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>
  4. 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>
  5. 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>
  6. 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>
  7. 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>
  8. 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**
9. **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>

10. **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>
11. **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>
12. **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](https://doi.org/10.1007/978-3-030-50252-2_11)
13. **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>
14. **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>
15. **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>
16. **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>
17. 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>
18. **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](https://corescholar.libraries.wright.edu/isap_2019/79)

#### Technical Reports & Thesis

1. 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>
2. 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.**
3. **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>

4. **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

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##### Invited Lectures, Panels, & Keynote Addresses

1. **Huang, G.** (2022). Multimodal Information Presentation in Next-Generation Automated Vehicles. Invited seminar. College of Charleston. November.
2. **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.
3. **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.
4. **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. 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 3<sup>rd</sup> Place Winner**
2. 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.
3. 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 *66<sup>th</sup> International Annual Meeting of the Human Factors and Ergonomics Society*. Atlanta, GA. October.
4. Dong, M. (**presenter**), Lee, Y., Cha, J., & **Huang, G.** (2022). Effects of Alcohol Consumption on Driving: A Systematic Review. Oral presentation given at the *66<sup>th</sup> International Annual Meeting of the Human Factors and Ergonomics Society*. Atlanta, GA. October.
5. Summerville, S. (**presenter**), Etu, E., Sureshabu, 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 *66<sup>th</sup> International Annual Meeting of the Human Factors and Ergonomics Society*. Atlanta, GA. October.
6. Martinez, K. (**presenter**), & **Huang, G.** (2022). The Effects of Tactile Display on Automated Vehicle Takeover: A Literature Review. Poster presented at the *66<sup>th</sup> International Annual Meeting of the Human Factors and Ergonomics Society*. Atlanta, GA. October.
7. Sajedinia, Z., Akash, K., Zheng, Z., Misu (**presenter**), T., Dong, M., Krishnamoorthy, V., Martinez, K., Sureshabu, 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.
8. 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.
  9. **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.
  10. **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.
  11. **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 *65<sup>th</sup> International Annual Meeting of the Human Factors and Ergonomics Society*. Baltimore, MD. October.
  12. **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 *2<sup>nd</sup> IEEE International Conference on Human-Machine Systems*. Magdeburg, Germany (Virtual). September.
  13. **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 *2<sup>nd</sup> Annual Human Factors and Ergonomics Society Student Chapter Conference*. Virtual. April.
  14. **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 *64<sup>th</sup> International Annual Meeting of the Human Factors and Ergonomics Society*. Chicago, IL (Virtual). October.
  15. **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 *64<sup>th</sup> International Annual Meeting of the Human Factors and Ergonomics Society*. Chicago, IL (Virtual). October.
  16. **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 *22<sup>nd</sup> International Conference on Human-Computer Interaction*. Copenhagen, Denmark (Virtual). July.
  17. **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.
  18. 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.
  19. **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.
  20. **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.
21. 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.
  22. 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.
  23. **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.**
  24. **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 *20<sup>th</sup> International Symposium on Aviation Psychology*. Dayton, OH. May.
  25. **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.
  26. **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.
  27. 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

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| • RSCA Faculty Mentor Award of Excellence, SJSU   | 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

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## 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)

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## MENTORING

### Graduate Students

- Vidya Krishnamoorthy, Industrial & Systems Engineering (graduated in Spring 2022)
- Kimberly Martinez, Industrial & Systems Engineering (expected Spring 2023)
- Miaomiao Dong, Industrial & Systems Engineering (expected Spring 2023)
- Minal Shah, Industrial & Systems Engineering (expected Spring 2024)
- Carmen Roberts, Industrial & Systems Engineering (expected Spring 2024)
- Jinyoung Lee, Industrial & Systems Engineering (expected Spring 2024)
- Zhi Zhang, Industrial & Systems Engineering (expected Spring 2024)

### Undergraduate Students

- Brenna Nettles-Miller, Industrial & Systems Engineering (expected Spring 2023)

### Awards with mentored students

- 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

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## SERVICE/ LEADERSHIP DEVELOPMENT

### Professional Service

- **Journal Reviewer** 2020 – Present
  - *Applied Ergonomics*
  - *Applied Sciences*
  - *Ergonomics*
  - *Human Factors*
  - *IEEE Transactions on Human-Machine Systems*



- *IEEE Transactions on Intelligent Transportation Systems*
  - *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*
  - **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)
  - **Conference Organizing Committee Chair/Member**
    - 2024 International Advances in Intelligent Robotics and Industrial Automation Symposium (AIRIA 2024). Technical Program Committee
    - 2020 1<sup>st</sup> Annual HFES Student Chapter Conference. Committee Chair
  - **Conference Session Chair/Co-Chair**
    - 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
  - **Chair of the Healthcare Track**, IEEE Conference on Industry and Innovations enabled by Industry 4.0 Technologies 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**, NHanCE Research Lab, Purdue University 2017 – 2021
  - **Session Chair**, Purdue Summer Undergraduate Research Fellowship Research e- 2020

## Symposium

- **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

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- 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

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- 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
- 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

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

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Updated April 2023