

# Dr. Jibo HE

Tenured Associate Professor

## CONTACT INFORMATION

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## ACADEMIC POSITIONS

Associate Professor, Dept. of Psychology, Tsinghua University	2018-present
Associate Professor, Dept. of Industrial Engineering, Tsinghua Univ.	2018-present
Tenured associate professor, Dept. of Psychology Wichita State University	2017-present
Assistant professor, Dept. of Psychology, Wichita State University	2012-2017
Invited guest professor, Dept. of Psychology, Peking University	2014-present
Research scientist, Transportation Research and Innovation Lab, State Farm Insurance Company	2010-2012
Microsoft Research Asia	2006

## EDUCATION

PhD, Psychology	University of Illinois	2007-2012
MA, Psychology	University of Illinois	2007-2010
BA, Economics	Peking University	2004-2007
BS, Psychology	Peking University	2003-2007

## EXPERTISE

### Programming Languages

Proficient in Python, Java, Matlab (Psychotoolbox), Objective-C, Swift;  
Familiar with C++, PHP, HTML, CSS, Lisp, Act-R, E-Prime, Presentation, Latex;  
Smartphone development for iPhone, Android, Android Wear, Google Glass

### Statistics Packages

SAS, SPSS, R

### User Experience Research

Eye-tracking experiment design and data analysis  
Focus group, Paper prototyping, Cognitive task analysis, Heuristic evaluation, Card sorting, A/B testing, Usability benchmarking etc.

### User Interface Design

Morae, Photoshop, Axure, Persona, Invision, JustInMind

## RESEARCH INTERESTS

- Experimental Psychology
- Cognitive Psychology

- Human factors
- Driver distraction
- Driver fatigue
- Aviation safety
- Eye movement
- Human-machine interaction
- Visual cognition
- Attention
- Computer vision
- Usability
- Mobile devices
- Augmented reality
- Virtual reality
- Mixed reality

## PATENTS

1. **He, Jibo**, and Jeremy Patterson. "Non-invasive biofeedback system." U.S. Patent Application 15/478,869, filed April 4, 2017.
2. Plummer, B. A., Brown, P. A., **He, J.**, Fields, B. M., Roberson, S., Cielocha, S. C., & Peng, J. (2017). System and method for monitoring and reducing vehicle operator impairment. U.S. Patent No. 9,758,173. Washington, DC: U.S. Patent and Trademark Office.
3. Fields B M, **He J**, Nepomuceno J A, et al. (2016). Real-time driver observation and scoring for driver's education: U.S. Patent 9,275,552[P]. 2016-3-1.
4. **He, J.**, and Zhiquan Ren. "Vehicle operator impairment detection system and method." U.S. Patent Application 15/137,449, filed April 25, 2016.
5. **He, J.**, Fields, B. M., Roberson, S., Cielocha, S., Peng, J., & Coltea, J. (2015). System and method to monitor and reduce vehicle operator impairment. U.S. Patent No. 8,981,942. Washington, DC: U.S. Patent and Trademark Office. 17 Mar. 2015.
6. **He, J.**, Fields, B. M., Roberson, S., Cielocha, S., Peng, J., & Coltea, J. (2015). System and method to adjust insurance rate based on real-time data about potential vehicle operator impairment. U.S. Patent No. 8,930,269. 6 Jan. 2015.
7. Plummer, B. A., Brown, P. A., **He, J.**, Fields, B. M., Roberson, S., Cielocha, S., & Peng, J. (2016). Systems and methodologies for real-time driver gaze location determination and analysis utilizing computer vision technology. U.S. Patent No. 9,275,532. 1 Mar. 2016.
8. **He, J.**, & Patterson, J.. Non-invasive biofeedback system. U.S. Patent No. 20,160,066,835. 10 Mar. 2016.
9. **He, J.** & Chaparro, B. (Patent pending). Computer program, system, and method for observation and communication for mobile settings, mobile applications, and wearable mobile devices; Serial No. 62/069,005; Filed October 27, 2014; Docket No. 46799-PRO
10. **He, J.**, Chaparro, B., & Wang, L. (Patent pending). Lens mount for a wearable mobile device; Serial No. 62/069,027; Filed October 27, 2014; Docket No. 46840-PRO

## REFEREED JOURNAL PUBLICATIONS

1. Nisha Vinayaga Sureshkanth, Anindya Maiti, Murtuza Jadliwala, Kirsten Crager, **Jibo He**, and Heena Rathore (2019). A Practical Framework for Preventing Distracted Pedestrian-related Incidents using Wrist Wearables.

- Pervasive and Mobile Computing*. [SCI Index, Impact Factors = 2.183]
2. He, J., Crager, K., McCarley, J.S., Jadliwala, M., & Huang, S. (2018). Do wearable devices bring distraction closer to drivers? Comparing smartphones and Google Glass. *Applied Ergonomics*. [SCI, EI, SSCI Index, SJR Rank = Q1, Impact Factors = 2.183].
  3. Tian, Y., Huang, Y.F., He, J.\*, & Wei, K.L. (2018). Is Walking an Easy Task? A Mutual Interference of Texting and Walking. *Ergonomics*. [SSCI, SCI Index, Impact Factors = 2.183].
  4. Maiti, A., Jadliwala, M., He, J., & Bilogrevic, I. (2018). Side-channel inference attacks on mobile keypads using smartwatches, *IEEE Transactions on Mobile Computing*. [SCI Index, SJR Rank = Q1, Impact Factors = 2.456].
  5. Ge, Y., Pang, H.S., Hu, Y.Y., He, J., Lei, T., Gong, Y.C. (2018). Study on Chinese College Students' Stereotypes of the Origin of Telephone Brands. *Journal of Chinese Studies*, 7, 72-81
  6. Sun, Q., Xia, J.H., He, J., Foster, J., Falkmer, T., & Lee, H. (2018). Towards unpacking older drivers' visual-motor coordination: A gaze-based integrated assessment system. *Accident Analysis & Prevention*. [EI Index, SRJ Rank = Q1, Impact Factors = 2.070].
  7. Turner, C.J., Chaparro, B.S., He, J. (2018). Text entry on a smartwatch QWERTY keyboard while walking. *Journal of Usability Studies*.
  8. Rafi, M., Chandrasekaran, B., Kusmez, B., Steck, J. E., & He, J. (2017). Real-Time Google Glass Heads-Up Display for Rapid Air-Traffic Detection. *Journal of Aircraft*. 1-12. [EI Index, SJR Rank = Q1, Impact Factors = 0.835].
  9. He, J., Choi, W., Yang, Y., Lu, J.S., Wu, X.H., & Peng, K.P. (2017). Detection of driver drowsiness using wearable devices: A feasibility study of the proximity sensor. *Applied Ergonomics*. 1-8. [SCI, EI, SSCI Index, SJR Rank = Q1, Impact Factors = 1.713].
  10. Cao, S., Ho, A.S., & He, J. (2017). Modeling and predicting mobile phone touchscreen typing using an intergraded cognitive architecture. *International Journal of Human-Computer Interaction*, 1-13. [SCI, EI Index, SJR Rank = Q1, Impact Factors = 1.476].
  11. Sanchiz, M., Chin, J., Chevalier, A., Fu, W. T., Amadiou, F., & He, J. (2017). Searching for information on the web: Impact of cognitive aging, prior domain knowledge and complexity of the search problems. *Information Processing & Management*, 53, 281–294. [SCI, SSCI Index, Impact Factors = 1.397].
  12. Turner, C. J., Chaparro, B. S., & He, J. (2017). Text Input on a Smartwatch QWERTY Keyboard: Tap vs. Trace. *International Journal of Human-Computer Interaction*, 1-8. [SCI, EI Index, SJR Rank = Q1, Impact Factors = 1.476].
  13. Wu, X.H., He, J.\*, Ellis, J., Choi, W., Wang, P.F., & Peng, K.P. (2016). Which is a Better In-Vehicle Information Display? A Comparison of Google Glass and Smartphones. *IEEE Journal of Display Technology*. 12 (11), 1364-1371. [SCI, EI Index, Impact Factors = 1.925].
  14. Wang, W., Hernandez, I., Newman, D. A., He, J., & Bian, J. (2016). Twitter Analysis: Studying US Weekly Trends in Work Stress and Emotion. *Applied*

- Psychology*, 65(2), 355-378. [SCI Index, SJR Rank = Q1, Impact Factors = 1.179].
15. Goldstein, G., **He, J.**, Ruthven, L., & Walker, J. (2016). An Introduction to the Ruthven Impairment Assessment (RIA): A Stability Study. *Applied Neuropsychology: Adult*, 1-7. [SCI Index, Impact Factors = 0.694].
  16. **He, J.**, Chaparro, A., Wu, X., Crandall, J., & Ellis, J. (2015). Mutual interferences of driving and texting performance. *Computers in Human Behaviors*, 52, 115-123. [SSCI Index, Impact Factors = 2.880].
  17. **He, J.** Choi, W., McCarley, J.S., Chaparro, B., & Wang, C. (2015). Texting while driving using Google Glass: Promising but not distraction-free. *Accident Analysis & Prevention*, 81, 218-229. [EI Index, SRJ Rank = Q1, Impact Factors = 2.070].
  18. Cheng, Z., Zhuo, G., Yue, Z., & **He, J.** (2015). Own-race faces capture more attention than other-race faces: Evidence from response time and N2pc ERP signal. *PLOS ONE*. 10(6):e0127709. doi:10.1371/journal.pone.0127709. [SCI Index, Impact Factors = 3.54].
  19. Wang, W., & **He, J.** (2015). Smartphones: A game changer for psychological research. *Journal of Ergonomics*. 5(2). doi: 10.4172/2165-7556.1000e136
  20. **He, J.**, Chaparro, A., Nguyen, B., Burge, R. J., Crandall, J., Chaparro, B., Ni, R., & Cao, S. (2014). Texting while driving: Is speech-based text entry less risky than handheld text entry? *Accident Analysis & Prevention*, 72, 287-295. [EI Index, SRJ Rank = Q1, Impact Factors = 2.070].
  21. **He, J.**, Choi, W., & Ellis, J. (2014). Driving and texting performance when drivers text behind the wheel. *Journal of Ergonomics*, 3, 1-2.
  22. **He, J.**, McCarley, J. S., & Kramer, A.F. (2014). Lane keeping under cognitive distraction: Performance changes and mechanisms. *Human Factors*, 56, 414-26. [SCI, SSCI Index, SRJ Rank = Q2, Impact Factors = 1.370].
  23. **He, J.**, Bryant, L., Stover, C., & Patterson, J.A. (2014). Measuring heart rate with webcam and mobile devices: A performance validation study. *International Journal of Applied Science and Technology*.
  24. **He, J.**, Roberson, S., Fields, B., Peng, J., Cielocha, S., & Coltea, J. (2013). Fatigue detection using smartphones. *Journal of Ergonomics*, 3, 1-7.
  25. **He, J.** (2013). Head-up display for pilots and drivers. *Journal of Ergonomics*, 3, 1-2.
  26. **He, J.** (2013). Drowsiness detection and management. *Journal of Ergonomics*, 3, 118.
  27. **He, J.**, Becic, E., Lee, Y.C., & McCarley, J. S. (2011). Mind wandering behind the wheel: Performance and oculomotor correlates. *Human Factors*, 53, 13-21. [SCI, SSCI Index, SRJ Rank = Q2, Impact Factors = 1.370].
  28. **He, J.**, & McCarley, J. S. (2010). Executive working memory load does not compromise perceptual processing during visual search. *Attention, Perception, & Psychophysics*, 72, 308-316. [SCI, SSCI Index, Impact Factors = 1.782].
  29. Fu, W.T., Kannampalli, T. G., Kang, R., & **He, J.** (2010). Semantic imitation in social tagging. *ACM Transactions on Computer-Human Interaction*, 17, 1-37.

- [SCI Index, Impact Factors = 1.870].
30. **He, J.**, Li, N., & Li, T. (2010). Adult attachment and incidental memory for emotional words, *Interpersona: an international journal on personal relationships*, 4 (suppl. 1), 1-20.
  31. Li, N., **He, J.**, & Li, T. (2009). Gender difference of insecure attachment: Universal or culture-specific? *Behavioral and Brain Sciences*, 32, 36-37. [SCI, SSCI Index, Impact Factors = 20.415].
  32. Li, T., Wan, L., **He, J.**, Qin, H.P., Guo, X.F., & Wang, .X.N. (2008). Attachment style, social support and loneliness of college students, *Chinese Journal of Behavioral Medicine*, 17, 1115-1117.
  33. Li, T., **He, J.**, Guo, X.F., & Lu, X.M. (2006). Adult attachment and social support of self-learning students, *Chinese Journal of Behavioral Medicine*, 15, 1019-1020.

### MANUSCRIPT UNDER REVIEW

1. Liu, X.F., Zhang, Q., & **He, J.** (submitted). Claiming to be Good in Parts or in Whole? The Joint Effect of Headline and Body Copy on Ad Effectiveness. *Journal of Business Research*
2. Liu, Xuefeng, Jason Q. Zhang and **Jibo He** (2017), "The Effects of Incentives on Valence of Product Reviews," to be submitted to *Marketing letters*.
3. Liu, Xuefeng, Jason Q. Zhang and **Jibo He** (2017), "Small Screens Beat Big Ones: The Comparison between Smart Phone Ads and Billboards on Ad Effectiveness," Working paper, target journal: *Journal of Business Research*.
4. **He, J.**, Sun, Q., Persinger, J., & Ni, R., & Jadliwala, M. (under review). Does smartwatch bring distractions closer to drivers? *PLOS ONE*.
5. Ren, Z. Deng, Y., Dai, **He, J.** (under review). A deep learning framework to detect cell-phone usage while driving. *IEEE Transactions on Human-Machine Systems*
6. **He, J.**, Chaparro, A., Zhou, R.G. (under review). Texting while driving: Attention share or attention switch? *Computers in Human Behavior*.
7. **He, J.**, Chaparro, B., Persinger, J., Haskins, C., & Ellis, J. (under writing). A Data Logging Toolkit for Mobile Usability Research: A Case Study. *Journal of Usability Studies*
8. **He, J.**, Huang, S., Liu, G.L., Zhang, D. (working project). Neural activities for drivers who text behind the wheel. *Ergonomics*.

### REFERED PROCEEDINGS

1. Bin Jiang, Jielin Chen, **Jibo He**, Hua-qing Wang, and Christ Webster. (2019). A Trade-off Effect: Comparing impacts of a variety of freeway landscapes on drivers' driving performance and self-reported mental status. *Annual conference of Council of Educators in Landscape Architecture*.

2. Vinayaga-Sureshkanth, N., Maiti, A., Jadliwala, M., Crager, K., **He, J.**, and Rathore, H., Towards a Practical Pedestrian Distraction Detection Framework using Wearables, in the *Proceedings of the Workshop on Sensing Systems and Applications Using Wrist Worn Smart Devices (WristSense), colocated with IEEE PerCom*, 2018. (**Best Paper Award**)
3. Granados, J.G., Hopper, M.J., & **He, J.** (2018). A Usability and Safety Study of Bone-Conduction Headphones During Driving while Listening to Audiobooks, 62.
4. Wang, Q., Yang, Y., Chen, J.D., **He, J.**, Zuo, H.F., Zhang, W. (2018, July) Driver motion detection using on-line sequential learning. *COTA International Conference of Transportation Professionals*. Beijing, China.
5. Crager, K., Maiti, A., Jadliwala, M., & **He, J.** (2017, April). Information leakage through mobile motion sensors: User awareness and concerns. In *Proceedings of the European Workshop on Usable Security (EuroUSEC)*.
6. Vinayaga-Sureshkanth, N., Maiti, A., Jadliwala, M., Crager, K., He, J., & Rathore, H. (2018). Towards a Practical Pedestrian Distraction Detection Framework using Wearables. *WristSense 2018: Workshop on Sensing Systems and Applications Using Wrist Worn Smart Devices*. Athens, Greece, March 19-23, 2018.
7. Maiti, A., Jadliwala, M., **He, J.**, & Bilogrevic, I. (2017). Side-Channel Inference Attacks on Mobile Keypads using Smartwatches. arXiv preprint arXiv:1710.03656.
8. Anindya Maiti, Kirsten Crager, Murtuza Jadliwala, and **Jibo He**, "RandomPad: Usability of Randomized Mobile Keypads for Defeating Inference Attacks", In the *Proceedings of the IEEE EuroS&P Workshop on Innovations in Mobile Privacy & Security (IMPS)*, Paris, France, April 2017.
9. Maiti, A., Armbruster, O., Jadliwala, M., & **He, J.**(2016). Smartwatch-Based Keystroke Inference Attacks and Context-Aware *Protection Mechanisms*. *The Proceedings of the 11th ACM on Asia Conference on Computer and Communications Security (ASIACCS)*, Xi'An, China, May 30 – June 3, 2016.
10. Maiti, A., Murtuza, J., **He, J.** & Bilogrevic, I. (2015). (Smart) watch your taps: A comprehensive study of side-channel keystroke inference attacks on modern touchpads using smartwatches. *Annual Computer Security Applications Conference*. Los Angeles, CA, December 7-11, 2015.
11. Anindya Maiti, Murtuza Jadliwala, **Jibo He**, and Igor Bilogrevic. "(Smart)Watch Your Taps: Side-Channel Keystroke Inference Attacks using Smartwatches," *ACM International Symposium on Wearable Computers (ISWC)*, Osaka, Japan, September 07 – 11, 2015.
12. Rafi, M., Chandrasekaran, B., Kusmez, B., Steck, J. E., & **He, J.** (2016). A Dynamic Heads-Up Air Traffic Locator & Collision Advisory Display Using Google Glass. In *AIAA Guidance, Navigation, and Control Conference*(p. 1627-1635), San Diego, California, USA, January 4-8, 2016.
13. Gannon, E., Chaparro, B., **He, J.**, Gao, X.F. (2016). RSVP reading on a smart watch. *Proceedings of Human Factors and Ergonomics Society*, Washington

- DC, September 19–23, 2016.
14. **He, J.**, Chaparro, B., Zhong, Q. (2016). Tools and techniques for assessing mobile user experience. *The Conference of User Experience Professionals Association*, Seattle, WA, May 31-June 3, 2016.
  15. Wang, W., Hernandez, I., Newman, D. A., **He, J.** & Bian, J. (2016). Twitter analysis: U.S. weekly trends in work stress and emotion. *The 31<sup>st</sup> Annual Conference of the Society for Industrial and Organizational Psychology*, Anaheim, CA, Anaheim, CA, April 14-16, 2016.
  16. Wang, W., Zeman, B., Bian, J., & **He, J.** (2015). Happiness on Twitter: Are emotions contagious across geographic boundaries? *The 4th World Congress on Positive Psychology*. Lake Buena Vista, FL, June 25-28, 2015.
  17. **He, J.**, Choi, W., Yang, Y., & Ren, Z.Q. (2015). Detection of Operator Drowsiness Using Google Glass. *Proceedings of Human Factors and Ergonomics Society*, Los Angeles, U.S.A., October 26–30, 2015.
  18. **He, J.**, Ellis, J., Choi, W., Wang, P.F., & Simons, D. (2015). Driving while reading using google glass versus using a smartphone: Which is more distracting to driving performance? *The 8th International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*, Snowbird, Salt Lake City, Utah, USA, June 22-25, 2015.
  19. Chaparro, B., **He, J.**, Turner, C., & Turner, K. (2015). Is touch-based text input practical for a smartwatch? *17th International Conference on Human-Computer Interaction*, Los Angeles, CA, USA, August 2-7, 2015.
  20. Phan, M., **He, J.**, & Chaparro, B. (2015). Can you judge a video game by its cover? An exploration of subjective impressions and eye movement patterns. *17th International Conference on Human-Computer Interaction*, Los Angeles, CA, USA, August 2-7, 2015.
  21. Canare, D., Chaparro, B., & **He, J.** (2015). A comparison of gaze-based and gesture-based input for a point-and-click task. *17th International Conference on Human-Computer Interaction*, Los Angeles, CA, USA, August 2-7, 2015.
  22. **He, J.**, Chaparro, A., Crandall, J., Turner, C., Turner, K., & Ellis, J. (2014). Mutual interferences of driving and texting performance. *Proceedings of Human Factors and Ergonomics Society*, Chicago, IL, October 27–31, 2014.
  23. **He, J.**, Chaparro, B., & Haskins, C. (2014). USee: A mobile usability research tool using Google Glass. *Proceedings of Human Factors and Ergonomics Society*, Chicago, IL, October 27–31, 2014.
  24. **He, J.**, Ang, C. W., Miller, A. J., Maddali, V., Gaspar, J. G., Carbonari, R. S., ... & Mathewson, K. E. (2014). Keep your mind on the road: Predicting mind-wandering while driving using classification of pre-probe oscillatory brain activity and driving performance. *Vision Sciences Society Annual Meeting*, 14(10), 635-635, St. Pete Beach, FLA, USA, May 16 - 21, 2014.
  25. **He, J.**, Chaparro, A., Nguyen, B., Burge, R., Crandall, J., Chaparro, B., Ni, R., & Cao, S. (2013). Texting While Driving: Is Speech-Based Texting Less Risky than Handheld Texting? *Automotive User Interfaces and Interactive Vehicular Applications*, Eindhoven, Netherlands, October 28 – 30, 2013.

26. **He, J.**, Fields, B., Peng, J., Cielocha, S., Coltea, J., & Roberson, S. (2013). Driver fatigue detection using a webcam or a smartphone. *Proceedings of the 6th the Eye, the Brain and the Auto World Research Congress*, Dearborn, MI, September 16 - 18, 2013.
  27. **He, J.**, Fields, B., Peng, J., Cielocha, S., Coltea, J., & Roberson, S. (2013). Fatigue detection using smartphones. *International Conference on Psychology and Application*, Beijing, China, August 14-16, 2013.
  28. Ren, Z. Q., Wang, C. & **He, J.** (2013). Vehicle detection using Android smartphones. *7th International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design*. Bolton Landing, New York, June 17-20, 2013.
  29. **He, J.**, & McCarley, J. S. (2011). Effects of cognitive distraction on lateral lane keeping performance. *Proceedings of Human Factors and Ergonomics Society*, Las Vegas, NV, September 19-23, 2011.
- Best paper award**
30. Fu, W.T., **He, J.**, Kannampallil, T., & Kang, R. (2009). Conformity out of diversity: Effects of different information goals on tagging behavior. *International Conference of Human-Computer Interactions*, San Diego, CA, July 19-24, 2009.
  31. Kang, R., Kannampallil, T., **He, J.** & Fu, W.T. (2009). Conformity out of diversity: Dynamics of information needs and social influence of tags in exploratory information search. *International Conference of Human-Computer Interactions*, San Diego, CA, July 19-24, 2009.
  32. **He, J.**, Becic, E., Lee, Y.-C., & McCarley, J. S. (2009). Identifying mind-wandering behind the wheel. *Proceedings of Human Factors and Ergonomics Society*, San Antonio, Texas, October 19-23, 2009
  33. **He, J.** (2008). SurfLogger: A logging browser and data processing method in web-based studies. *Proceedings of Society of Computer in Psychology*, Chicago, IL, November 13, 2008.
  34. Wang, S., Jing, F., **He, J.**, & Yang, J. (2007), IGroup: Presenting Web Image Search Results in Semantic Clusters. *Proceedings of the 2007 Conference on Human Factors in Computing Systems*, San Jose, California, USA, April 28 - May 3, 2007.
  35. Jing, F., Wang, S., **He, J.**, Du, Q., & Zhang, L. (2007). Long Query Suggestion List: Prioritized or Organized. *Proceedings of 12<sup>th</sup> HCI International*. Beijing, China.

## REFERED CONFERENCE ABSTRACTS

1. Ge, Y. , Huang, S., He, J. Huo, J.Y.(submitted). Appearance Matters: Eye Tracking Reveals How Branded Clothes Capture the Attention of Males and Females. *ETRA 2018 : Eye Tracking Research & Application*.
2. Chin, J., Chevalier, A., **He, J.**,& Fu, W.T. (2014, April). *Linking knowledge in the head to knowledge in the world: Age differences in web exploration with the search engine*. Paper presented at the Cognitive Aging Conference.



Atlanta, GA.

3. **He, J.** (2014, September). *Mobile technology to monitor drowsiness*. Paper presented at the 71th Annual Kansas Public Health Association Fall Conference, Topeka, KS.
4. Choi, W., **He, J.**, & Ellis, J. (2014, April). *Does more attention improve or impair lane keeping performance?* Paper presented at the Capitol Graduate Research Summit, Topeka, KS.
5. WSU Graduate School Scholarship for the Capitol Graduate Research Summit.
6. **He, J.**, Chaparro, A., Crandall, J., Turner, C., Turner, K., & Ellis, J. (2014, April). *Mutual Interferences of Driving and Texting Performance*. Paper presented at the Capitol Graduate Research Summit, Topeka, KS.
7. **He, J.**, Fields, B., Peng, J., Cielocha, S., Coltea, J., & Roberson, S. (2013, September). *Drive fatigue detection using a webcam or a smartphone*. Paper presented at the Eye, the Brain & the Auto, Ann Arbor, MI.
8. **He, J.**, & McCarley, J. S. (2008, November). *The role of executive working memory in visual search: What difference does high load make?* Poster presented at the 16th Annual Conference on Object Perception, Attention, and Memory, Chicago, IL.
9. **He, J.**, & McCarley, J. S. (2008, November). *Does short-term memory load influence visual search? An Oculomotor study*. Poster presented at the 20th Annual Convention of the Association for Psychological Science, Chicago, IL.
10. Li, T., **He, J.**, Li, N. (2006, July). *Adult attachment and incidental memory for emotional words*. Paper presented at Biannual International Conference of the International Association for Relationships Research (IARR). Rethymnon, Greece.

## BOOK CHAPTERS

- He, J.**, Chaparro, B., Siu, C., & Strohl, J. (2014). Mobile eye tracking. In Bergstrom, J.R. & Schall, A. (Eds.), *Eye Tracking in User Experience Design*. Burlington, MA: Morgan Kaufmann.
- He, J.** (2009). Behavioral and physiological measures of user experience. In Zhou, R.G. (Eds.), *Measure User Experience*. Beijing, China: Mechanical Industrial Publisher.

## TECHNICAL REPORTS

- He, J.** (2013). Visual Behaviors and Vehicle Dynamics of Driver Fatigue. Technical report for the Intelligent Vehicle Group at State Farm Insurance.
- He, J.** (2012). Driver fatigue detection with a webcam - Technical implementation. Technical report for the Intelligent Vehicle Group at State Farm Insurance.
- He, J.** (2012). Framework for detection of driver fatigue and distraction. Technical report for the Intelligent Vehicle Group at State Farm Insurance.

## INVITED PRESENTATIONS

- He, J.** (2013). Visual behaviors and vehicle dynamics of drowsy drivers. Presented at State Farm Insurance.
- He, J.** (2012). Use Automations to Help Impaired Drivers. Invited talk at the HumanFirst program at the University of Minnesota.
- He, J.** (2012). Drowsy Alert: Detect Driver Fatigue Using Smartphones. innovationReady presentation at State Farm Insurance.
- He, J.** (2011). "State Farm is there" with Distracted Drivers. Invited talk at State Farm Insurance.

**FUNDING (TOTAL FUNDED AMOUNT: \$ 1,355,057)**

**Note:** I have luckily received funding support from NIH, NSF, FAA, DOT in USA and NSF in China; and Several Fortune 500 companies like BMW and State Farm.

**PI.** Vehicle Tracking App for iOS and Android (2018);  
*Develop a smartphone app to track vehicle locations and time during vehicle maintenance*

*Award amount: RMB 21,0930*      *Funded by: BMW China Automotive Trading Ltd.*

**PI.** Voice-based lying detection (2018);  
*Using audios to detect lies for credit acceptance*

*Award amount: RMB 27,0000*      *Funded by: BMW China Automotive Trading Ltd.*

**Co.PI.** Youth Fund of Natural Science Foundation of China (2017-2019);  
*The Development of User Experience Model of Information Visualization and Its Application;*

*Award amount: RMB 210, 000 (equivalent to \$ 30,484)*

**PI., & Director.** Federal Aviation Administration Center of Excellence (2016-2021)  
*The Use of Head-Mounted Display and Wearable Devices in Simulator-based Pilot Training.*

*Award amount: \$289,908*

**Co. PI.** National Science Foundation (NSF) (2016)  
*CSR: Small: Surviving Cybersecurity and Privacy Threats in Wearable Mobile Cyber-Physical Systems (REU supplement)*

*Award amount: \$23,044*

**Co. PI.** National Science Foundation (NSF) (2016-2019)  
*EAGER: A Cloud-assisted Framework for Improving Pedestrian Safety in Urban Communities using Crowd-sourced Mobile and Wearable Device Data*

*Award amount: \$287,925*

**Co. PI.** National Science Foundation (NSF) (2015-2018)

*Surviving Cybersecurity and Privacy Threats in Wearable Mobile Cyber-Physical Systems.*

*Award amount: \$380,000*

**P.I.** Vigo Technologies Inc. (2015)

*On-road driving study to evaluate a wearable Bluetooth headset to monitor driver fatigue (Phase 2)*

*Amount: \$17,325*

**P.I.** Vigo Technologies Inc. (2015)

*Use wearable Bluetooth headset to monitor driver fatigue (Phase 1)*

*Amount: \$9,681*

**P.I.** Kansas Innovation Award (2015)

*Develop mobile usability toolkit for usability research, and enhance uSee Glass for usability observation*

*Amount: \$10,000*

**Co-P.I.** Chinese National Science Foundation (2014-2016)

*Driver inattention state detection based on gaze concentration*

*Amount: \$37,000 (230,000 RMB)*

**P.I.** State Farm Insurance Company (2014)

*Optimize the smartphone-based collision warning system for nighttime performance.*

*Amount: \$67,869.*

**P.I.** State Farm Insurance Company (2014)

*Development of a collision warning system using iPhone and Android.*

*Amount: \$64,270.*

**Co-P.I.** John A See Research Award (2014)

*Wearable Computing and Smart Phone Apps for Pilot Safety*

*Amount: \$10,000*

**P.I.** Preferred Mental Health Management, LLC (2014)

*Validate the Ruthven Impairment Scale*

*Amount: \$1,500*

**Co-P.I.** Regional Center for Transportation Research, Department of Transportation (2014)

*Evaluate how texting using Google Glass influences driving performance*

*Amount: \$17,748*

**P.I.** Wichita State University-Award for Research/Creative projects (2014)

*Develop a Google Glass application to detect fatigue for pilots and drivers*

*Amount: \$4,000*

**P.I.**Wichita State University-Multidisciplinary Research Project Award (MURPA)  
(2013)

*Validate the accuracy and reliability to measure heart rate remotely with a webcam or a smartphone*

*Amount: \$7,500*

**P.I.**State Farm Insurance Company (2012-2013)

*Identify visual indicators and vehicle dynamics of driver fatigue*

*Amount: \$30,000*

## **AWARDS AND HONORS**

- |   |         |
|---|---------|
| 1. Innovation Award: Newsmaker, WSU                                   | 10/2015 |
| 2. Innovation awards by Wichita Business Journal                      | 02/2015 |
| 3. Kansas Innovation Award, WSU                                       | 01/2015 |
| 4. Faculty of Excellence Award, WSU                                   | 11/2014 |
| 5. John A See Research Award (\$10,000), WSU                          | 05/2014 |
| 6. Health Care Innovation Award (\$7,000), WSU                        | 05/2014 |
| 7. Technology Innovation Award (\$7,000), WSU                         | 05/2014 |
| 8. Coleman Entrepreneurship Fellow, WSU                               | 08/2013 |
| 9. Most Valuable Graduate Award, UIUC                                 | 08/2012 |
| 10. Best student paper award, Human Factors & Ergonomics Society      | 09/2011 |
| 11. Outstanding Internship Award, State Farm Insurance                | 08/2011 |
| 12. Graduate College Travel Fund, UIUC                                | 09/2009 |
| 13. Birnbaum Fellow, Society for Computer in Psychology               | 11/2008 |
| 14. Graduate College Travel Fund, UIUC                                | 10/2008 |
| 15. Psychology Department Travel Fund, UIUC                           | 09/2008 |
| 16. Herbert Woodrow Fellowship, UIUC                                  | 04/2008 |
| 17. Outstanding Involvement Human Factors Ergonomics Society, UIUC    | 09/2007 |
| 18. Cherry 21st Century Scholarship, Peking University                | 10/2006 |
| 19. Excellent Student Leadership, Peking University                   | 10/2006 |
| 20. Star of Tomorrow Internship Award, Microsoft                      | 09/2006 |
| 21. Karamay Scholarship, Peking University                            | 10/2005 |
| 22. Excellent Individual in Social Practice, Peking University        | 10/2005 |
| 23. President's Undergraduate Research Fellowship, Peking University  | 05/2005 |
| 24. Dean's Award for Academic Excellence, Peking University           | 10/2004 |
| 25. Excellent Members of the Students Service Team, Peking University | 10/2004 |

## **MEDIA COVERAGE**

Dr. Jibo He's work and research lab have received academic recognition and media attention. More than thirty media have reported Dr. He's work in driving safety and mobile technology, including TEDx, 浙江卫视, 中国中央电视台 (CCTV), Bloomberg

News, Kansas City Star, Glass Almanac, New York Public Radio, APA Monitor, Insurance News, KAKE News, Wichita Business Journal, Wichita Eagle, KFDI news etc. At least five major languages in the world, including, English, Spanish, French, German, and Chinese, have reported the work by Dr. Jibo He.

## **AD HOC REVIEWER**

Human Factors

Journal of Experimental Psychology: Applied

Safety Science

International Journal of Internet Science

The Annual Meeting of the Cognitive Science Society

Acta Psychologica Sinica

International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design

The Conference on Psychology and Applications

IEEE Transactions on Human-Machine Systems

Human Factors and Ergonomics Society Conference

Transportation Research Part F: Traffic Psychology and Behavior

IEEE Transactions on Intelligent Transportation Systems

New School Psychology Bulletin's Editorial Board

International Conference on Psychology and Application

## **TEACHING EXPERIENCE**

### **Graduate Courses:**

- User Experience (offered for over 1000 students & practitioners in China & US)
- Engineering Psychology
- Research Methods
- Traffic Psychology
- Computer Application for Social Science
- Human Factors and Engineering Psychology
- Advanced Statistics for Psychology
- Social Cognition

### **Undergraduate courses:**

- System and Theories
- General Psychology
- Industrial/Organizational Psychology
- Human Factors
- Introduction to Statistics
- Vision and Space Lab
- Introduction to Psychology
- Psychology of Love

## **WORK EXPERIENCE**

**Research Scientist** State Farm Insurance; Champaign, IL 2010-2012

- Conduct user experience study of online quote system
- Lead the development of smartphone applications for driver fatigue and distraction detection using Android and iPhone

**Software Developer** SR Research Inc.; Toronto, CANADA 2010

- In charge of developing a statistics software for the analysis of eye movement data using Python and PyQt.

**Usability Researcher** EPTCO Group; Champaign, IL 2009-2012

- Optimize an e-commerce website for better search engine rank and user experience.

**Research Assistant** Accounting Department, UIUC; Champaign, IL 2009

- In charge of questionnaire design and data analysis.
- Data-mining a huge pdf files.

**Research Scientist** Microsoft Research; Beijing, CHINA 2006

- In charge of HTML coding and user interface design for “Lyra”, a web search engine
- In charge of user test design and paper writing for “Lyra” & “IGroup”
- Excellent evaluation for my internship program
- Two papers named “Long Query Suggestion List: Prioritized or Organized” and “Presenting Web Image Search Results in Semantic Clusters” are respectively accepted by the top conferences in ACM Human Computer Interaction (HCI)

**ACADEMIC AFFILIATION**

- Human Factors and Ergonomics Society
- American Psychological Society
- Vision Science Society
- User Experience Professionals Association

**ADVANCED DRIVING SIMULATOR UPGRADE SERVICES**