

JING WEI

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EDUCATION

- PhD in Human-Computer Interaction** Nov 2019 - Dec 2022 (Anticipated)
University of Melbourne, Australia
Thesis: Developing and Improving the Usability of Proactive Smart Speakers
- M.A.Sc in Systems Design Engineering** Sep 2017 - Nov 2019
GPA: 85/100
University of Waterloo, Canada
Thesis: Monitoring Circadian Rhythm and Sleep Patterns Using Wrist-worn Temperature and 3-axis Accelerometer Sensors
- B.Eng in Communication Engineering** Sep 2013 - Jun 2017
GPA: 3.8/4.0
Rank: 1/40
Southern University of Science and Technology, China

SKILLS

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|-----------------------------|--|
| Coding Languages | Python, R, Node.js, Java |
| Tools & Packages | Dialogflow ES, Rasa Open Source, Google Actions Builder, Pandas, Scikit-learn, Matplotlib, Raspberry Pi, Matlab, tidyverse, ggplot2, Pytorch, Tensorflow |
| Research Methods | Experience Sampling, Field Experiments, Usability Testing, Surveys, Interviews, Iterative Prototyping, 3D Modelling |

PROJECTS

- Developing Rasa Chatbot for Search Tasks** Sep 2021 - now
- Using the Rasa Open Source and Rasa X to develop a chatbot that answers search questions.
 - Developing a web front-end interface for the chatbot.
- Developing Proactive Smart Speakers based on Google Home** May 2020 - Aug 2021
- Built an interactive proactive smart speaker prototype based on Google Home with a Raspberry Pi.
 - Developed a Google action that could initiate a mini ESM survey to run on the proactive speaker prototype.
 - Tested the custom proactive speaker prototype with 13 participants in the wild for 3 weeks.
 - Studied contextual factors that were indicative of opportune moments for conversation engagements.
 - Analyzed the interaction errors and concluded with design insights for future smart speaker development.
- Monitoring Sleep and Circadian Rhythms** Aug 2018 - Aug 2019
- Built a wearable device by combining a 3-axis accelerometers and a iButton temperature sensor.
 - Used the developed device to measure the sleep and the circadian rhythms of three populations.
 - Worked with 10 older adults and 8 older adults with dementia during this project.

PUBLICATIONS

1. **Jing Wei**, Benjamin Tag, Johanne R Trippas, Tilman Dingler, Vassilis Kostakos. 2022. "What Could Possibly Go Wrong When Interacting with Proactive Smart Speakers? A Case Study Using an ESM Application", **Proc. Conference on Human Factors in Computing Systems (CHI)**. [Acceptance rate: 24.7%] [Ranking: A*]
2. **Jing Wei**, Tilman Dingler, Vassilis Kostakos. 2021. "Understanding User Perceptions of Proactive Smart Speakers", **Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)**, vol. 5, no. 3, article 185, 28 pages. [Ranking: A*]
3. Dingler, T., Kwasnicka, D., **Wei, J.**, Gong, E., & Oldenburg, B. (2021). The Use and Promise of Conversational Agents in Digital Health. **Yearbook of Medical Informatics**, 30(01), 191-199.
4. **Wei, J.**, & Boger, J. (2021). Sleep Detection for Younger Adults, Healthy Older Adults, and Older Adults Living With Dementia Using Wrist Temperature and Actigraphy: Prototype Testing and Case Study Analysis. **JMIR mHealth and uHealth**, 9(6), e26462.
5. **Wei, J.**, Dingler, T., & Kostakos, V. (2021, May). Developing the Proactive Speaker Prototype Based on Google Home. In **Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems** (pp. 1-6).
6. Jiang, W., Sarsenbayeva, Z., van Berkel, N., Wang, C., Yu, D., **Wei, J.**, ... & Kostakos, V. (2021, May). User Trust in Assisted Decision-Making Using Miniaturized Near-Infrared Spectroscopy. In **Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems** (pp. 1-16).
7. Morita, P. P., Rocha, A. S., Shaker, G., Lee, D., **Wei, J.**, Fong, B., ... & Boger, J. (2020). Comparative Analysis of Gait Speed Estimation Using Wideband and Narrowband Radars, Thermal Camera, and Motion Tracking Suit Technologies. **Journal of Healthcare Informatics Research**, 4(3), 215-237.
8. Morita, P. P., Rocha, A. S., Shaker, G., Lee, D., **Wei, J.**, Fong, B., ... & Boger, J. (2019, September). Comparison of Gait Speed Estimation of Multiple Sensor-Based Technologies. In **Proceedings of the International Symposium on Human Factors and Ergonomics in Health Care** (Vol. 8, No. 1, pp. 135-139). Sage CA: Los Angeles, CA: SAGE Publications.
9. **Wei, J.**, & Boger, J. (2019). You are how you sleep: personalized sleep monitoring based on wrist temperature and accelerometer data. In **13th EAI International Conference on Pervasive Computing Technologies for Healthcare-Demos and Posters**. European Alliance for Innovation (EAI).
10. **Wei, J.**, Zhang, J., & Boger, J. (2018, October). What wrist temperature tells us when we sleep late: a new perspective of sleep health. In **2018 IEEE Ubiquitous Intelligence & Computing (UIC)** (pp. 764-771). IEEE.
11. Ge, L., Zhang, J., & **Wei, J.** (2018). Single-frequency ultrasound-based respiration rate estimation with smartphones. **Computational and mathematical methods in medicine**, 2018.

AWARDS

1. Melbourne Graduate Research Scholarship (2019-2022)
2. University of Waterloo Graduate Scholarship (2019)
3. Waterloo Special Graduate Student Entrance Award (2017)
4. Student Paper Competition of IEEE MDDBS 2017, First Award (2017)
5. Scholarship for Outstanding Students, SUSTech, 3rd Prize (2016)
6. 4-Year University Start-up Scholarship provided by Shenzhen Municipal Government (2013-2017)