KAIXIN JI

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RESEARCH INTEREST

My research interests lie at the intersection of cognitive psychology and human-computer interaction, with a particular focus on leveraging wearable devices to support self-awareness and regulation of cognitive health. My thesis aims to measure users' information behaviors and cognitive bias in interactive information-seeking with multi-modal sensing. The sensing data includes neurophysiological, e.g, EEG for brain activity, Electrodermal Activity (EDA) and Blood Volume Pulse (BVP) for peripheral activity, and eye-tracking data, etc.

EDUCATION EXPERIENCES

Ph.D. (Data Science)   March 2022 - Sept. 2025 (est.)
RMIT University & ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S)
- **Supervisors:** Damiano Spina, Falk Scholer, Danula Hettiachchi, Flora Salim (UNSW)

Master of IT (Human-Computer Interaction)   March 2020 - July 2021
University of Melbourne
- **Main Subjects:** UX design, Usability Testing, User Study, Field Study

Bachelor of IT (Software Development)   March 2017 - Dec. 2019
University of South Australia

SELECTED PUBLICATIONS

[1] SenseSeek Dataset: Multimodal Sensing to Study Information Seeking Behaviors.
ACM Proceedings of Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2025.
<u>Kaixin Ji</u>, Danula Hettiachchi, Flora Salim, Falk Scholer, Damiano Spina

[2] GLOSS: Group of LLMs for Open-Ended Sensemaking of Passive Sensing Data for Health and Wellbeing.
ACM Proceedings of Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2025.
Akshat Choube, Ha Le, Jiachen Li, <u>Kaixin Ji</u>, Vedant Das Swain, Varun Mishra

[3] Sensory Design with Scent: Exploring the Impact of Ambient Smell on Emotions and Physiological Responses in the Office Environment.
The International Journal of Building Science and its Applications (Building and Environment), 2025.
Mohsen Kafaei, Mehrnoush Latifi, Jane Burry, Joseph Ciorciari, Amirhossein Aminitabar, <u>Kaixin Ji</u>

[4] Towards Detecting and Mitigating Cognitive Bias in Spoken Conversational Search.
ACM International Conference on Mobile Human-Computer Interaction (MobileHCI Adjunct) [Poster], 2024.
<u>Kaixin Ji</u>, Sachin Pathiyan Cherumanal, Johanne Trippas, Danula Hettiachchi, Flora Salim, Falk Scholer, Damiano Spina

[5] Characterizing Information Seeking Processes with Multiple Physiological Signals.
ACM Conference on Research and Development in Information Retrieval (SIGIR), 2024.
<u>Kaixin Ji</u>, Danula Hettiachchi, Flora Salim, Falk Scholer, Damiano Spina

[6] Walert: Putting Conversational Search Knowledge into Action by Building and Evaluating a Large Language Model-Powered Chatbot.
ACM Conference on Human Information Interaction and Retrieval (CHIIR) [Demo], 2024.
Sachin Pathiyan Cherumanal, Lin Tian, Futoon M Abushaqra, Angel Felipe Magnossão de Paula, <u>Kaixin Ji</u>, Halil Ali, Danula Hettiachchi, Johanne R Trippas, Falk Scholer, Damiano Spina

[7] Inside Out or Not: Privacy Implications of Emotional Disclosure.
ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp Adjunct) [Poster], 2024.
Elham Naghizade, <u>Kaixin Ji</u>, Benjamin Tag, Flora Salim

[8] 🏆 Towards Detecting Tonic Information Processing Activities with Physiological Data.
ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp Adjunct) [Poster], 2023.
<u>Kaixin Ji</u>, Danula Hettiachchi, Flora Salim, Falk Scholer, Damiano Spina

[9] Examining the Impact of Uncontrolled Variables on Physiological Signals in User Studies for Information Processing Activities.
ACM Conference on Research and Development in Information Retrieval (SIGIR) [Short], 2023.
<u>Kaixin Ji</u>, Danula Hettiachchi, Flora Salim, Falk Scholer, Damiano Spina

[10] Designing and Evaluating Presentation Strategies for Fact-Checked Content.
ACM Conference on Information and Knowledge Management (CIKM), 2023.
Danula Hettiachchi, <u>Kaixin Ji</u>, Jenny Kennedy, Anthony McCosker, Flora D Salim, Mark Sanderson, Falk Scholer, Damiano Spina

[11] Individual and Group-wise Classroom Seating Experience: Effects on Student Engagement in Different Courses.
ACM Proceedings of Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2022.
Nan Gao, Mohammad Saiedur Rahaman, Wei Shao, <u>Kaixin Ji</u>, Flora Salim

Submissions Under Review:

[12] Towards a Dissonance Thermometer: Understanding Neuro-physiological Responses to Attitude Conflict in Information Search.
ACM Proceedings of CHI Conference on Human Factors in Computing Systems (CHI), 2026.
<u>Kaixin Ji</u>, Danula Hettiachchi, Flora Salim, Falk Scholer, Damiano Spina

AWARDS & GRANTS

Awards

- Gary Marsden Travel Award
  @ ACM SIGCHI *2025*

- Best Poster
  @ RMIT School of Computing Technologies Doctoral Colloquium *2024*

- Special Service Award
  @ ACM International Conference on Mobile Human-Computer Interaction (MobileHCI) *2024*

- Best Poster Paper
  @ ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp/ISWC) *2023*

- Student Challenge Award
  @ ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp/ISWC) *2023*
  🏆 ZzzGPT: An Interactive GPT Approach to Enhance Sleep Quality
  Yonchanok Khaokaew, Thuc Hanh Nguyen, <u>Kaixin Ji</u>, Hiruni Kegalle, Marwah Alaofi

- Runner-up (group) of Bushfire Grand Challenge Masterclass
  @ Commonwealth Scientific and Industrial Research Organisation (CSIRO) Data61 *2022*

- International Merti Scholarship
  @ University of South Australia *2019*

Grants

- The Chinese Government Award for Outstanding Self-financed Students Abroad – US$6,000
  @ China Scholarship Council *2025*

- Internal HDR Funding – AU$5,000
  @ ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S) *2024 & 2025*

- Student Conference Travel Grant (APAC) – AU$3,000 *@ Google* *2024*

- Internal Research Funding – AU$5,000 (experiment equipment acquisition)
  @ ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S) *2022*

ACADEMIC SERVICES

Workshop Co-Organizer

- NeuroPhysIIR'25: The International Workshop on NeuroPhysiological Approaches for Interactive Information Retrieval
  @ ACM Proceedings of the SIGIR Conference on Human Information Interaction and Retrieval *2025*

- APhyMeHII'24: Advancing Physiological Methods for Human-Information Interaction
  @ ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp/ISWC) *2024*

Conference Organization Committee

- Student Volunteer Co-Chair @ *ACM SIGIR CHIIR* *2025*
- Registration Chair @ *ACM MobileHCI* *2024*
- Student Volunteer @ *ACM UbiComp/ISWC* *2024*

Invited Reviewer & Sub-reviewer

- ACM CHI, ACM MobileHCI, ACM SIGIR, ACM TOIS, ACM CHIIR

TEACHING & PROFESSIONAL EXPERIENCE

CIDDA Usability Lab Manager
Feb. 2023 - Present
RMIT University

Tutor/Teaching Assistant
July 2022 - Present
RMIT University

- **Subjects:**
  * Data Mining (COSC2111): *Semester 2, 2025*
  * Practical Data Science with Python (COSC2670): *Semester 1, 2025*
  * Programming Fundamentals for Scientists (COSC2510): *Semester 1, 2025*
  * Advanced Programming on Data Science (COSC2410): *Semester 2, 2023 & Semester 1, 2024*
  * Programming Bootcamp 1 – Python (COSC2801): *Term 1, 2022*
  * Programming Bootcamp 2 – Java (COSC2802): *Term 1, 2022*
  * Building IT System (COSC2250): *Semester 1, 2022*

Research Assistant
June 2022 - June 2024
RMIT University

- **Project:** *Understand the Relation between Context, Users' Emotion, and Information Disclosure Behavior*

Software Intern
April 2019 - Nov. 2019
YourAnswer.io

- **Description:** Develop the backend of a client reporting console for product performance evaluation, then deploy on AWS.

Intern
Dec. 2018 - Feb. 2019
Leyan Technologies

- **Description:** Build microservices, design and construct databases, and develop APIs.

Guest Lecture
RMIT University

- **Subjects & Talk Topics:**
  * Geospatial Programming (GEOM2157 & GEOM2159): *Tips for Complex Data Analysis with Python*
  * Buyer Behavior (MKTG1339): *Eye-tracking for Online Buyer Behaviors*
  * Usability Engineering (COSC1182): *Design a Lab Study for: Quantify and measure online user behaviours and attitude changes in information-seeking using sensors*

REFERENCE

Dr. Damiano Spina
PhD Senior Supervisor
Email: damiano.spina@rmit.edu.au

Prof. Falk Scholer
PhD Senior Supervisor
Email: falk.scholer@rmit.edu.au

Dr. Danula Hettiachchi
PhD Joint supervisor
Email: danula.hettiachchi@rmit.edu.au

Prof. Flora Salim
PhD Joint supervisor
Email: flora.salim@unsw.edu.au