

Ka Hei Carrie Lau

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🔍 Research Interests

Human–Computer Interaction: Human-Generative-AI; User Experience Research & Evaluation; Extended Reality for Learning; Multimodal Interaction

🔧 Research Methods

Qualitative: Interviews, Focus Groups, Usability Testing; Quantitative: Surveys, Experimental Design, Statistical Analysis; Mixed-Methods: Integrating Qualitative & Quantitative Approaches; Physiological & Behavioral: Eye-Tracking (Headset & Webcam), Multimodal Data Fusion; Study Contexts: Crowdsourced & In-Lab User Studies

🎓 Education

Technical University of Munich

Munich, Germany

PhD (*Dr. rer. nat.*), School of Computation, Information and Technology Mar 2023 – June 2026

- Dissertation title: *Designing and Evaluating Gen-AI for Cultural and Social Inclusion*
- Focus: Human–AI interaction; XR for learning; eye-tracking; mixed-methods UX research

University of Siegen

Siegen, Germany

M.Sc., Human–Computer Interaction Sept 2019 – Nov 2022

- Grade: 1.2 (Very good)
- Dissertation (Volkswagen AG, Wolfsburg): *User study of the relationship between seat properties and human pressure distribution: HMI approach to elevate occupant's comfort*
- **Coursework:** Design & Psychology, Humans & Technology, Ubiquitous Computing & Usable Security, Machine Learning, Visualization of AI, Multimodal Interaction for Voice Assistants

University of Oulu

Oulu, Finland

Information Technology and Electrical Engineering (Erasmus Exchange) Sept 2021 – Dec 2021

- Grade: 1.0
- **Coursework:** Natural Language Processing & Text Mining, VR Systems & Humans, Data Mining, Deep Learning & Multimodal Data Fusion

Hong Kong Baptist University

Hong Kong

B.A., Visual Arts (Craft and Design Concentration) Sept 2014 – Nov 2016

- Dean's List: Semester 1, 2014–2015; Semester 2, 2015–2016
- Direct entry to Year 3 (advanced standing)

🔧 Research Experience

Master Thesis

Wolfsburg, Germany

Volkswagen AG Feb 2022 – Sep 2022

- Designed and executed a user study to identify critical use cases and derive an HCI approach for increasing long-haul occupant comfort in autonomous vehicles.

Research Project (HMI)

Abstatt, Germany

Robert Bosch GmbH 2020

- Implicit nudging for careless driving behavior in autonomous vehicles (SAE Level 4, 5).

Publications

- Lau, K. H. C., & Kasneci, E. (2026). What shapes participant data quality? A scoping review and case study of crowdsourced webcam eye tracking in AI interviews [To appear]. *Proceedings of the 2026 ACM Symposium on Eye Tracking Research & Applications*.
- Lau, K. H. C., Stark, P., Bozkir, E., & Kasneci, E. (2026). Skin-deep bias: How avatar appearances shape perceptions of AI hiring [To appear. **Best Paper Honorable Mention** (top ~5% of submissions). Code: [Open Source](#) ]. *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems*. <https://doi.org/10.1145/3772318.3790379> 
- Lau, K. H. C., Terzimehić, N., & Kasneci, E. (2026). Promptmirror: Visualizing ChatGPT use to support student reflection [To appear (*Lau & Terzimehić: equal contribution)]. *Proceedings of the 2026 ACM Conference on Designing Interactive Systems*.
- Buldu, K. B., Özdel, S., Lau, K. H. C., Wang, M., Saad, D., Schönborn, S., Boch, A., Kasneci, E., & Bozkir, E. (2025). Cuify the xr: An open-source package to embed llm-powered conversational agents in xr. *2025 IEEE International Conference on Artificial Intelligence and eXtended and Virtual Reality (AIxVR)*, 192–197. <https://doi.org/10.1109/AIxVR63409.2025.00037> 
- Lau, K. H. C. (2025). Designing and evaluating gen-AI for cultural resilience [Doctoral Consortium]. *Proceedings of the 27th International Conference on Multimodal Interaction*, 706–710. <https://doi.org/10.1145/3716553.3750819> 
- Lau, K. H. C., Bozkir, E., Gao, H., & Kasneci, E. (2025). Evaluating usability and engagement of large language models in virtual reality for traditional scottish curling. In A. Del Bue, C. Canton, J. Pont-Tuset, & T. Tommasi (Eds.), *Computer vision – eccv 2024 workshops* (pp. 177–195). Springer Nature Switzerland.
- Lau, K. H. C., Sen, S., Stark, P., Bozkir, E., & Kasneci, E. (2025). Adaptive gen-ai guidance in virtual reality: A multimodal exploration of engagement in neapolitan pizza-making [Code: [Open Source](#) ]. In *Proceedings of the 27th international conference on multimodal interaction* (pp. 305–316). Association for Computing Machinery. <https://doi.org/10.1145/3716553.3750760>
- Lau, K. H. C., Yun, B., Saruba, S., Bozkir, E., & Kasneci, E. (2025). Wrapped in anansi's web: Unweaving the impacts of generative-ai personalization and vr immersion in oral storytelling [Code: [Open Source](#) ]. *Proceedings of the Augmented Humans International Conference 2025*, 312–332. <https://doi.org/10.1145/3745900.3746103> 
- Bozkir, E., Özdel, S., Lau, K. H. C., Wang, M., Gao, H., & Kasneci, E. (2024). Embedding large language models into extended reality: Opportunities and challenges for inclusion, engagement, and privacy. *Proceedings of the 6th ACM Conference on Conversational User Interfaces*. <https://doi.org/10.1145/3640794.3665563> 

Teaching Experience

Instructor, <i>Project Week: Towards Inclusive AI Cultural-Companion: Pepper*</i>	WS 2025/2026
Collaborator, <i>EuroTeQ Collider: Interdisciplinary Project Course (SOT82701, SOT86701)</i>	SS 2025
Instructor, <i>Project Week: Identifying Knowledge Gaps with Voice-Based AI</i>	WS 2024/2025
Instructor, <i>Seminar: Extended Reality for AI — Crafting Context-Aware Environments (IN0014, IN2107)</i>	SS 2024

Mentor, *PREP: Practical Research Experience Program* SS 2024
○ Guided students in research design; resulted in a peer-reviewed publication.

Instructor, *Seminar: Planning and Implementation of Research Works in Classroom Research II* SS 2024

Instructor, *Project Week: Safeguarding Bavarian Beer Heritage** WS 2023/2024

* Selected by the Excellence Strategy of the federal and state governments.

† Supervised 4 Bachelor's and Master's theses, and 3 interdisciplinary project teams.

Industry Experience

Product Management Intern *Abstatt, Germany*
Robert Bosch GmbH *Mar 2021 – Aug 2021*

- Conducted competitive and market analyses to understand user expectations for vehicle safety systems.
- Identified product opportunities through user needs research and technology scouting.
- Collaborated with engineers and product manager to align safety feature development with user requirements.

Co-Founder & Product Lead *Hong Kong*
FoodWalker *Apr 2019 – Apr 2021*

- Drove product vision and led UX design for a B2B marketplace, scaling revenue to \$780k (225% growth) and expanding the customer base to over 500 clients.

Product Manager *Hong Kong*
MyiCellar *Sep 2017 – Aug 2019*

- Led user research and product development for a mobile app, optimizing the content and discovery experience for a large user base.
- Coordinated cross-functional teams to implement user-centered interface improvements to avoid information overload.
- Conducted usability evaluations and gathered user feedback to define and optimize critical user journeys and experience sentiment within the e-commerce platform.
- Delivered design strategies in collaboration with partners (e.g., Moët Hennessy, LVMH) for new retail campaigns.

Awards & Fellowships

Friedrich Schiedel Fellowship for Technology in Society *2026–2027*

Outstanding HKSAR Government Reaching Out *2014–2015*

HKSAR Matching Scholarships Scheme *2014–2015*

HKSAR Self-financing Post-secondary Scholarship Scheme *2014–2015*

Talks & Presentations

Talk, *Zugang Gestalten!* — invited by the German Commission for UN-ESCO, focused on digital access to cultural heritage *Nov 2025*

Exhibitor, *XplorerDay 2024* *Oct 2024*

Exhibitor, *Tech Boost Deutschland Summit* — organized by Straightlabs and Meta *Sep 2024*

Talk, <i>Immersive Reality Chronicles: Cultural Diversity and Inclusion in Immersive Technologies</i> — panel discussion	Oct 2023
Exhibitor, <i>Kunstareal-Fest</i> , Munich	Jul 2023
Exhibitor, <i>Festival der Zukunft</i> , Munich	Jul 2023

Service & Leadership

Organiser, <i>Parkrun, Prinzenpark Braunschweig</i>	2022–2023
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Skills

UX Research: Mixed-methods design (generative & evaluative), usability studies, interviews, surveys, contextual inquiry

Multimodal Methods: Eye-tracking (headset & webcam), head-tracking, verbal interaction analysis, multimodal data fusion

Data & Analytics: Python, R, SQL, data mining, statistical analysis, interaction log analysis, NLP concepts

Tools: Adobe Creative Suite, prototyping tools

Project Management: Certified Professional Scrum Master (PSM I), Agile/Scrum methodologies

Languages: Cantonese (native), Mandarin, English, German (B2)