

## Kasper Karlgren — Curriculum Vitæ

PROGRAMMER — DESIGNER — HCI RESEARCHER

### Bio

I am a design driven developer doing research in the gap between technology, sociology, and design studies. Through my research, I have taken specific care in understanding how to design for the agency of the users and the full cycle of the development process, from sketching concepts and designing system architecture to maintaining databases and tinkering with the interaction.

### Experience

My basic degree is in Computer Science and Engineering from KTH Royal Institute of Technology. In 2024, I completed my PhD degree in Human-Computer Interaction (HCI) at Stockholm university, supervised by professors Barry Brown and Donald McMillan. The dissertation includes designs for future interaction with bio-tracking devices and is based on a series of interview and questionnaire studies of non-normative sleep practices. During my PhD program, in addition to the bio-tracking work, I was also involved in developing gaze-based interaction for smart homes and developing social robotics and telepresence technology in collaboration with Hideaki Kuzuoka at Tokyo University and Ikkaku Kawaguchi at Tsukuba University.

Before joining the PhD program I worked at *Netlight consulting* as one of the designers of the in-house design studio. Tasks included concept art, infographics, and animations for annual conferences, large format printing, and UX testing of digital services. I have over the years had a number of various shorter jobs, including concept modelling for NLP, freelance design tasks, map design, and freelance photography.

### Projects

**2024 — Autonomous Last Mile** A speculative project using Extended Reality (XR) to explore a future where Autonomous Vehicles (AVs), such as passenger cars and commercial vehicles, have become the primary mode of mobility, replacing traditional driving. I lead the experience development in Unity and workshops for evaluations.

**2019-2024 — Sleep technology** Research in designing for agency over self-tracking and sleep technologies. This work resulted in several published papers in competitive conferences and journals and an interactive system called Awari.

**2023 — Tamatoo** Design and testing of a speech agent, capable of mutual gaze, answering queries, free movement, and remote telepresence.

**2021-2023 — AIBU** Seminars, teaching, and project supervision for a course in AI-Based Experience Design.

**2017-2019 — Netlight Design Studio** Work on Netlight's design brand and design delivery.

### Tools

**Design** Illustrator, Indesign, MDI studies, Animations in After Effects

**3D** Blender, Unity, Fusion 360

**Programming** Svelte, React, Python, Matlab, Javascript, Java, Kotlin

### Languages

Speaks Swedish, Finnish, and English fluently. Studied Japanese at University.

## Grants, Engagement and Awards

- 2022** Organizer and Local Chair for ACM IMX 2024  
**2022** Honorable Mention Award from ACM IMX for “*Kintsugi VR: Designing with Fractured Objects*”  
**2022** SIGMM grant for Student Travel 1’000 \$ ~ 10’510 sek  
**2016** JASSO Scholarship for Short-term Study in Japan 880’000 ¥~ 62’000 sek

## Studies

**2019–2024** PhD studies in Human-Computer Interaction, DSV SU

1. DH2650 Interaction Design Research
2. Reinforcement Learning
3. DD2429 Ethics in Computer and Systems Sciences Research
4. DH2413 Topics in ethnomethodology and conversation analysis

**2017–2019** Master’s programme in Computer Science, KTH

1. DH2650 Computer Game Design
2. DD2470 Advanced Topics in Visualization and Computer Graphics
3. DD2429 Computational Photography
4. DH2413 Advanced Graphics and Interaction

**Spring 2018** Exchange studies, Aalto University, Helsinki

1. Additive manufacturing
2. Information Visualisation
3. Aesthetics
4. Law in digital society

**2016–2017** Japanese language and culture, Keio University, Tokyo

**2013–2019** Degree Programme in Media Technology, KTH

**2010–2013** Natural Science Program, Södra Latin’s gymnasium

## Publications

- 2024** (Re)Framing the ‘Smart’ Fridge: Configurable Technology for Activist Food-Sharing Communities — K Berns, K Karlgren, A Menon, C Rossitto, J Thorlander, D McMillan *NordiChi*
- 2024** TegakARi: Augmenting Creative Drawing With Audio and Visual Cues — D Iyer, A Uhde, K Karlgren, H Kuzuoka — *OzChi*
- 2023** Sleep Planning with Awari: Uncovering the Materiality of Body Rhythms using Research through Design — K Karlgren, D McMillan *CHI*
- 2022** Designing for Extreme Sleepers: Rethinking the Rhythms of Sleep Technology — K Karlgren, D McMillan *NordiCHI*
- 2022** From Self-Tracking to Sleep-Hacking: Online Collaboration on Changing Sleep — K Karlgren, D McMillan, B Brown *CSCW*
- 2022** Kintsugi VR: Designing with Fractured Objects — Asreen Rostami, K Karlgren, D McMillan *ACM IMX*

## References

- Barry Brown, Copenhagen University, barry@di.ku.dk
- Donald McMillan, Stockholm University, donald.mcmillan@dsv.su.se
- Sandra Wiaderny, Netlight, sandra.wiaderny@netlight.com