Luca-Maxim Meinhardt

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Education

Ulm University — Ulm, Germany
PhD Candidate, Human-Computer Interaction — Feb 2022 – Jun 2026 *(expected)*
Advisor: Prof. Enrico Rukzio
Dissertation Working Title: Special Information Needs in Emerging Automated Mobility
Research Area: Urban Air Mobility, Accessibility in Transportation, Digital Well-being

Santa Clara University — Santa Clara, CA, USA
Visiting Researcher at Human-Computer Interaction Lab — Jan 2025 – Feb 2025
Host: Prof. Kai Lukoff
Research Area: Digital Well-being

University of Siegen — Siegen, Germany
M.Sc. Human-Computer Interaction — Oct 2019 – Dec 2021
Master's Thesis at CARL ZEISS AG - Corporate Research and Technology
Co-Advisors: Prof. Kristof van Laerhoven, Dr. David Dobbelstein
Published parts of the thesis at ACM CHI '23: doi.org/10.1145/3544549.3585799

Ostfalia University of Applied Sciences — Salzgitter, Germany
B.A. Media Design — Sep 2015 – Nov 2018

Experience

ULM UNIVERSITY - Institute of Media Informatics — Ulm, Germany
Research Associate — Feb 2022 – Present
- Conducting and publishing research in Human-Computer Interaction
- Supervised 15+ undergraduate and graduate projects, including Bachelor's and Master's theses
- Taught: *Recent Trends in Media Informatics* (Winter '22/23), *Fundamentals of Interactive Systems* (Winter '23), and *Human-Computer Interaction* (Summer '24/25)

CARL ZEISS AG - Corporate Research and Technology — Oberkochen, Germany
Master's Thesis Candidate — Apr 2021 – Nov 2021
- Developed iOS app prototype for self-diagnosing corneal astigmatism using Swift and OpenCV, integrating user-guided workflows and computer vision.
- Collaborated with Carl Zeiss algorithm/patent/dev teams in Agile/SCRUM framework to align prototypes with ophthalmology standards.
- Presented actionable insights to stakeholders

AUDI AG - Marketing and Brand Experience — Ingolstadt, Germany
Intern — Nov 2018 – Apr 2019
- Managed 3 classic/digital/social media campaigns
- Organized Audi's social media brand activation at the Berlinale Film Festival (Berlin) and Online Marketing Rockstars (Hamburg)
- Collaborated with Creative, PR, and Event teams to align campaigns with national brand strategy

KOLLE REBBE (Accenture Interactive) — Hamburg, Germany
Digital Art Intern — Mar 2018 – Aug 2018
- Designed and conceptualized social media campaigns for global brands (AUDI, Rauch), creating visual assets and digital content
- Collaborated with cross-functional teams (copywriters, strategists) to align campaigns with client goals
- Utilized Adobe PS, AI, AE, PR to prototype campaigns, streamlining workflows for 50+ design works.

Skills

Programming Languages: Python, C, C++, Swift, JavaScript, Java
Software Skills: Adobe PS, AI, AE, IN, PR, R Studio, Blender
Research Methods: Qualitative Methods, Quantitative Methods, Design Thinking, Participatory Design, Statistical Analysis, Bayesian Optimization, User Testing, Academic Writing

Publications (selection)

L.-M. Meinhardt, L. Wilke, M. Elhaidary, J. von Abel, P. Fink, M. Rietzler, M. Colley, E. Rukzio (2025). *Light My Way. Developing and Exploring a Multimodal Interface to Assist People With Visual Impairments to Exit Highly Automated Vehicles.* Proceedings of the ACM CHI '25. 10.1145/3706598.3713454. *Acceptance rate: 24.9%*

L.-M. Meinhardt, M. Elhaidary, M. Colley, M. Rietzler, JO Rixen, A. Purohit, E. Rukzio (2025). *Scrolling in the Deep: Analysing Contextual Influences on Intervention Effectiveness during Infinite Scrolling on Social Media.* Proceedings of the ACM CHI '25. 10.1145/3706598.3713187. *Acceptance rate: 24.9%*

L.-M. Meinhardt, C. Schramm, P. Jansen, M. Colley, E. Rukzio (2025). *Fly Away: Evaluating the Impact of Motion Fidelity on Optimized User Interface Design via Bayesian Optimization in Automated Urban Air Mobility Simulations.* Proceedings of the ACM CHI '25. 10.1145/3706598.3713288. *Acceptance rate: 24.9%*

L.-M. Meinhardt, M. Colley, M Tahmid, M. Rädler, E. Rukzio (2024). *Wind Of Change: Investigating Information Visualizations for Passengers and Residents' Perception of Automated Urban Air Mobility.* Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 2024. 10.1145/3699753. *Acceptance rate: 20-25%*

L.-M. Meinhardt, M. Rück, J. Zähnle, M. Elhaidary, M. Colley, M. Rietzler, E. Rukzio (2024). *Hey, What's Going On? Conveying Traffic Information to People with Visual Impairments in Highly Automated Vehicles: Introducing OnBoard.* Proceedings of the ACM CHI '25. 10.1145/3659618. *Acceptance rate: 20-25%*

J. O. Rixen, **L.-M. Meinhardt**, M. Glöckler, M.-L. Ziegenbein, A. Schlothauer, M. Colley, E. Rukzio, J. Gugenheimer (2023). *The Loop and Reasons to Break It: Investigating Infinite Scrolling Behaviour in Social Media Applications and Reasons to Stop.* Proceedings of the ACM on HCI 2023. 10.1145/3604275   🏆 **Honorable Mention Award**

L.-M. Meinhardt, K. Van Laerhoven, D. Dobbelstein (2023) *EyesOnMe: Investigating Haptic and Visual User Guidance for Near-Eye Positioning of Mobile Phones for Self-Eye-Examinations.* Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems 10.1145/3544549.3585799. *Acceptance rate: 27%*

Patents

D. Dobbelstein, L. Stoppe, **L.-M. Meinhardt**, M. Wald, A. Leube (2025). *Computer-Implemented Method and Devices for Determining at Least One Astigmatism Parameter of at Least One Eye of a Person.* Pending EU Patent. EP4371469A1

Other Academic Activities

Workshop Organizer

Y. W. Kim, Y. G. Ji, S. Yoon, M. Colley, and **L.-M.Meinhardt** (2023). *The 3rd Workshop on User Experience in Urban Air Mobility: What Could We Learn From AutomotiveUI?* Automotive User Interfaces and Interactive Vehicular Applications. 10.1145/3581961.3609824. Seoul, South Korea

Y. W. Kim, C. Lim, Y. G. Ji, S. H. Yoon, M. Colley, and **L.-M. Meinhardt** (2022). *The 2nd workshop on user experience in urban air mobility: From ground to aerial transportation.* Automotive User Interfaces and Interactive Vehicular Applications. 10.1145/3544999.3550223. Ingolstadt, Germany.

Reviewer

2x 🏆 *Special Recognition for Outstanding Review*

ACM SIGCHI: Mobile HCI'23/'25 CHI'25, CHI LBW '23/'24, CUI '24, IMWUT '22

Secured Funding

DFG – German Research Foundation (2025)
Beyond Screen Time: Context- and Content-tailored Interventions to Social Media Usage to Enhance Digital Well-being
Co-applicant (PI: Prof. Enrico Rukzio)
Amount: €297,260

Graduate & Professional Training Center Ulm (2024)
Context- and Content-Specific Interventions for Infinite Scrolling on Social Media Platforms
Principal Investigator
Amount: €10,000

DFG – German Research Foundation (2023)
Non-Visual Interfaces to Enable the Accessibility of Highly Automated Vehicles for People with Vision Impairments
Co-applicant (PI: Prof. Enrico Rukzio)
gepris.dfg.de/gepris/projekt/536409562
Amount: €280,901