# Albin Zeqiri

Ulm, Germany zeqiri.albin@outlook.de Google Scholar LinkedIn GitHub Website

## Human-Computer Interaction Researcher/Doctoral Candidate

I am a **final-year PhD candidate in Human–Computer Interaction** at Ulm University, focusing on user-centered sustainability and carbon reduction in resource-intensive digital systems. My research spans (1) designing citizen-facing interactions for emerging urban technologies that go beyond simple automation and (2) analyzing how carbon-reduction mechanisms are implemented in deployed digital systems and what user behaviors they trigger. Methodologically, I combine empirical studies (online, lab, and field), qualitative analysis, statistical methods, and machine learning, including NLP on datasets collected through data mining.
I have a background in HCI (BSc), Data Science (BSc, MSc), and Behavioral Psychology, and have published at top-tier HCI venues, including CHI and IMWUT. I also collaborate closely with academic (**UCL Interaction Centre, Karlsruhe Institute for Technology**) and industry partners (**Mercedes-Benz Tech Innovation**).

## Skills

**Experimental Design:** Online/Laboratory/Field-based Experiments (exploratory/hypothesis-driven), Large-Scale Literature Surveys (e.g., PRISMA), Data Mining Workflows (Design & Implementation)
**Quantitative Methods:** Statistical analysis (Frequentist/Bayesian), Machine Learning/Deep learning
**Qualitative Methods:** Participatory Design, Design Thinking, Workshops, Interviews, Thematic analysis, Grounded Theory
**Programming:** Python, PyTorch, TensorFlow, Keras, R, Java, C#, C/C++, HTML, CSS, JavaScript, Unity,
**Design:** UI/UX Prototyping, Image/Video editing
**Languages:** Albanian (native), German (native), English (fluent), French (intermediate)

## Working Experience

**ULM UNIVERSITY - Chair of Human-Computer Interaction** Ulm, Germany
*Research Associate* 09/2022 – present

- Led HCI research on behavioral determinants of resource-intensive system use across residential, automotive, and online contexts, integrating qualitative and quantitative methods.
- Designed and conducted 15+ research studies, including controlled experiments, in-the-wild deployments, and work focused specifically on data mining/dataset curation as input for AI-based systems
- Collaborated with academic (**UCL Interaction Centre**, **Karlsruhe Institute of Technology**) and industry research partners (**Mercedes-Benz Tech Innovation**), with primary responsibility of planning and setting up reproducible machine learning workflows aimed at predicting user behavior based on real-world datasets.
- Supervised and mentored 20+ undergraduate and graduate students, providing guidance through problem formulation, study design, data analysis, and publication

**ULM UNIVERSITY – Chair of Human–Computer Interaction/Visual Computing** Ulm, Germany
*Research Assistant/Tutoring* 12/2019 – 04/2022

- Developed interactive VR research prototypes using Unity and C#
- Supported the design, execution, and evaluation of empirical user studies
- Taught C#, Unity, and fundamentals of UI/UX prototyping to a class of 40+ students
- Managed and maintained course materials for supervising faculty
- Evaluation and reporting of various monocular depth estimation models in terms of performance and scalability

## Education

**Ulm University**, Ulm, Germany 09/2022 – 12/2026 (expected)
PhD Candidate in Human-Computer Interaction
*Dissertation Working Title:* Carbon Reduction Mechanisms in Resource-Intensive Digital Systems: A Sufficiency-Based Approach to User-Centered Design
*Research Areas:* Responsible and Sustainability Computing, Design Tradeoff Optimization
Advisor: Prof. Dr. Enrico Rukzio

**Ulm University**, Ulm, Germany 03/2020 – 08/2022
M.Sc. Computer Science Overall Grade: 1.3 (A-equivalent)
*Thesis Title:* A Dataset and Temporal Modeling Approach for Automated Thermal Comfort State Recognition Thesis Grade: 1.0 (A-equivalent)
*Published at UbiComp '24:* 10.1145/3678503

**Ulm University**, Ulm, Germany 10/2016 – 12/2019
B.Sc. Computer Science Overall Grade: 2.0 (B-equivalent)
*Thesis Title*: Depth Levels: Measuring Achievable Levels of Voluntary Vergence Eye Movements for Eye-based Human-Computer Interaction Thesis Grade: 1.0 (A-equivalent)

## Publications

M. Sasalovici, **A. Zeqiri**, R. C. Schramm, O. J. A. Nunez, P. Jansen, J. P. Freiwald, M. Colley, C. Winkler, and E. Rukzio. 2025. *Bumpy Ride? Understanding the Effects of External Forces on Spatial Interactions in Moving Vehicles.* In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI '25). 10.1145/3706598.3714077.

**A. Zeqiri**, J. Britten, C. Schramm, P. Jansen, M. Rietzler, and E. Rukzio. 2025. *PlantPal: Leveraging Precision Agriculture Robots to Facilitate Remote Engagement in Urban Gardening.* In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI '25). 10.1145/3706598.3713180.

**A. Zeqiri**, P. Jansen, J. O. Rixen, M. Rietzler, and E. Rukzio. 2024. *'Eco Is Just Marketing': Unraveling Everyday Barriers to the Adoption of Energy-Saving Features in Major Home Appliances.* In Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT). 10.1145/3643558.

M. Colley*, S. Hartwig*, **A. Zeqiri**, T. Ropinski, and E. Rukzio. 2024. *AutoTherm: A Dataset and Benchmark for Thermal Comfort Estimation Indoors and in Vehicles.* Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT). 10.1145/3678503.

**A. Zeqiri**, M. Rietzler, and E. Rukzio (2024). *Exploring Contextual Feature Combinations for Prediction of Subjective Thermal Perceptions.* In Companion of the 2024 on ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '24). 10.1145/3675094.3678487.

## Teaching

**Interactive Visual Design** 10/2022 – present
Institute of Media Research and Media Development
*Co-Organizer:* I instruct on the basic principles of interactivity and data visualization, taking full charge of a seminar series dedicated to data visualization libraries, such as D3.js. This includes mentoring several student groups one-on-one, guiding them in designing and implementing their own interactive visualization projects.

**Visual Design** 10/2022 – present

Chair of Media Research and Media Development

*Co-Organizer:* Contributed to course organization and implemented an out-of-the-box web framework enabling student use with minimal web development expertise. Additionally, I teach an introductory web development seminar series with a focus on responsive design using HTML, CSS, and various JavaScript libraries.

**Research Project: User-Centred Design** 10/2022 – 10/2025

Chair of Human-Computer Interaction

*Co-Organizer:* Co-organization and supervision of interdisciplinary projects, emphasizing user-centered design and design thinking, integrated with a year-long, research-driven group project.

**Seminar Research Trends in Media Informatics** 10/2022 – 02/2024

Chair of Human-Computer Interaction

*Co-Organizer:* Co-organization of the course and personally delivering in-depth, one-on-one instruction to students on conducting literature surveys using the PRISMA method, complemented by active involvement in student assessment and grading processes.

## Student Supervision

**Excerpt of supervised students in theses and research projects:**

- Christine Mayer (Ulm University and Exxcellent Solutions GmbH; 2025)
- Lukas Adrion (Ulm University; 2025)
- Petula Arnold (Ulm University; 2025)
- Carla Brenner (Ulm University; 2025)
- Linus Nadler (Ulm University; 2024)
- Johannes Martin Ertle (Ulm University; 2024)
- Julian Britten (Ulm University and Botanical Garden Ulm; 2024, now PhD student at Ulm University)
  *Published at CHI '25*: 10.1145/3706598.3713180
- Thilo Segschneider (Ulm University; 2023)
- Katharina Wünning (Ulm University; 2022)
- Matthias Müller (Ulm University; 2022)
- Patrick Öttl (Ulm University; 2022)

## Scholarly Service & Volunteering

**Peer-Review – Reviewed 40+ manuscripts for the following venues:**

- ACM Conference on Human Factors in Computing Systems (CHI): '23, '24, '25, '26
- Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT): '23, '24, '25
- ACM International Conference on Intelligent User Interfaces (IUI): '24, '26
- ACM/IEEE International Conference on Human-Robot Interaction (HRI): '25
- ACM International Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutoUI): '24, '25
- IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR): '23, '24
- ACM Conference on Designing Interactive Systems (DIS): '24
- Proceedings of the ACM on Human-Computer Interaction (PACMHCI)
- ACM Conference on Human Factors in Computing Systems Play (CHI PLAY): '23, '25
- Computers & Technology (C&T): '25
- Mensch und Computer (MuC): '24

**AIGRID Member:**

- Joined the AIGRID initiative as a member
- Regularly engage in collaborative activities aimed at advancing responsible and interdisciplinary AI research, including participation in community discussions, knowledge exchange, and cross-domain networking among AI researchers.

## Other

**Secured competitive funding for both my own doctoral research and collaborative lab projects through scholarships and co-authored research grants:**

- Received the *Landesgraduiertenförderung (LGFG)* doctoral scholarship, a competitive three-year fellowship supporting PhD research in Germany
- Received a one-time travel grant (€2800) from the *Graduate & Professional Training Center Ulm*
- Co-authored a successful Deutsche Forschungsgemeinschaft (DFG) Reinhart Koselleck proposal, *VRooms: Fighting Climate Change by Increasing the Utilization of Buildings through Everyday Extended Reality* (project link), with Prof. Dr. Enrico Rukzio