Albin Zeqiri

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Human-Computer Interaction Researcher/Doctoral Candidate

I am a **final-year PhD candidate in Human–Computer Interaction** at Ulm University, with a research focus on sustainability and carbon reduction in resource-intensive digital systems. My work examines how carbon-reduction mechanisms influence subsequent user behavior and how emerging technologies can be implemented to support sustainable resource use. Methodologically, I combine quantitative and qualitative approaches. 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 regularly collaborate with academic partners (**UCL Interaction Centre, Karlsruhe Institute of Technology**) and industry partners (**Mercedes-Benz Tech Innovation**).

Skills

Experimental Design: Online, laboratory, and field-based experiments (exploratory and hypothesis-driven); large-scale literature surveys (e.g., PRISMA); data mining using multi-API data collection and NLP-based analysis
Analysis: Statistical analysis (frequentist and Bayesian); machine learning and deep learning (supervised and self-supervised), qualitative analysis using thematic analysis and grounded theory
Programming Languages: Python, R, C#, Java, C/C++, SQL, Bash, HTML, CSS, JavaScript
Frameworks and Tools: PyTorch, TensorFlow, Keras, CUDA, OpenCV, Git, Gradle, JUnit, MySQL, PostgreSQL
Design: UI/UX prototyping and wireframing; image and video editing (Adobe Creative Cloud)
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 carbon-reduction mechanisms in resource-intensive systems across residential, automotive, and online contexts, integrating quantitative and qualitative evaluation methods.
- Planned and executed 10+ 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 for designing reproducible deep learning pipelines and ablation studies, contributing to peer-reviewed publications.
- Supervised and mentored 40+ 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
- Managed and maintained course materials for the 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, Computational 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

A. Zeqiri, M. Rietzler, and E. Rukzio. 2026. *(Conditionally Accepted) Investigating the Effects of Eco-Friendly Service Options on Rebound Behavior in Ride-Hailing.* In Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26).

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
- *Recognitions for Outstanding Reviews: 2024: CHI (2x), MobileHCI (1x), Mensch und Computer (1x), IMWUT (1x); 2025: CHI (2x), IMWUT (2x)*

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:

- Awarded a Deutscher Akademischer Austauschdienst (DAAD) doctoral travel grant to support participation in the CHI 2026 conference.
- Received the *Landesgraduiertenförderung (LGFG)* doctoral scholarship, a competitive three-year fellowship supporting PhD research in Germany.
- Awarded a competitive one-time travel grant of €2800 from the *Graduate & Professional Training Center Ulm* to support participation in UbiComp 2024.
- 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