

# Jan Henry Belz

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## Experience

- 10/2023 – Today **Research Associate**, Dr. Ing. h.c. F. Porsche AG  
In alignment with my PhD studies, I develop software solutions for probing and analyzing upcoming technology trends. These systems are part of Porsche's advance development strategy for early feature detection.
- 04/2024 – Today **Lecturer**, Ulm University  
As lecturer at Ulm University, I am responsible for organizing and conducting the lecture *Sketching with Hardware*. Here, students are made familiar with the concepts of hardware prototyping by using embedded AI, Arduino programming, 3D-printing, and laser-cutting. The course consists of a theoretical lecture and a hands-on project. The lecture's structure and slides were created by myself and are available upon request. In the winter term 2026/27, I additionally organize and co-teach the lecture *Agentic Interaction*, in which students build tool-using LLM agents and document them in a CHI-style paper.
- 05/2026 – 08/2026 **University of Cambridge, Visiting Researcher**  
I visited the Intelligent Interactive Systems group led by [Prof. Dr. Per Ola Kristensson](#) for three months for a collaborative research project on adaptive Mixed Reality (MR) environments.
- 06/2024 – Today **AI Grid Member**, [AI Grid](#), Talentik GmbH  
As an AI Grid member, I connect with AI experts from many different domains (including Volkswagen Group, DFKI, Daimler Truck AG). In several events hosted by the Federal Ministry of Research, Technology and Space (e.g., AI Grid Summit Berlin), I collaborate with other researchers across various domains in smaller projects.
- 05/2019 – 04/2023 **Research Assistant**, Ulm University  
During my bachelor's and master's studies, I worked as a research assistant in the HCI research group of Ulm University, where I engaged in several published research projects in the field of autonomous driving. Supervised by [Dr. Mark Colley](#), I conducted systematic literature reviews, programmed and conducted user studies, and analysed resulting data. Early on I was included in the publication process of scientific literature.

## Education

- 10/2023 – 12/2026 **Ulm University, Doctor of Philosophy (PhD)** (expected)  
Thesis title: *Application of Machine Learning in Automotive Interfaces*.  
Advisors: [Dr. Tobias Grosse-Puppendahl](#) and [Prof. Dr. Enrico Rukzio](#)
- 04/2023 – 09/2023 **Tampere University, Master's Thesis**  
Thesis title: *Towards More Accessible Public Transportation: Deploying Mixed Reality in Public Social Spaces*.  
Grade: 1.1 (A-equivalent)  
Advisors: [Prof. Dr. Kaisa Väänänen](#) and [Prof. Dr. Markku Turunen](#)
- 04/2021 – 09/2023 **Ulm University, Master of Science in Computer Science**  
Focus subjects: *Human-Computer Interaction, Machine Learning*  
Overall grade: 1.2 (A-equivalent)

## Education (continued)

- 04/2017 – 03/2021 **Ulm University, Bachelor of Science in Computer Science**  
Thesis title: *Investigating the effects of feedback communication of autonomous vehicles.*  
Grade: 1.0 - A-equivalent  
Overall Grade: 2.1 (B-equivalent)
- 09/2015 – 02/2017 **Aalen University, Bachelor of Engineering in Internet of Things**  
Collaborative program between Aalen University and HfG Schwäbisch Gmünd

## Academic Activities

### Invited Talks & Lectures

- 07/2026 **University College London (UCL)**, Invited talk on expanding interaction at the [UCLIC](#).
- 05/2026 **University of Cambridge**, Invited talk on context-aware AI in the automotive domain.
- 12/2025 **Ulm University**, Lecture on application of AI in the automotive industry.
- 11/2025 **RWTH Aachen**, Lecture on application of AI at Porsche.
- 12/2024 **Ulm University**, Lecture on application of AI in the automotive industry.
- 04/2024 **Porsche AG**, Internal lecture on context-aware computing through AI.
- 11/2023 **TU Darmstadt**, Lecture on the application of Large Language Models in automotive use cases.

### Academic Conferences

- 10/2026 **NordiCHI 2026: Nordic Conference on Human-Computer Interaction, Vaasa**, Participation in the Doctoral Consortium.
- 09/2026 **AutomotiveUI 2026: 18th International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications, Gothenburg**, Presentation of a scientific poster.
- 06/2026 **IMX 2026: ACM International Conference on Interactive Media Experiences**, Presentation of a [scientific publication](#).
- 04/2026 **CHI 2026: ACM Conference on Human Factors in Computing Systems**, Presentation of a workshop paper.
- 10/2024 **UIST 2024: 37th Annual ACM Symposium on User Interface Software and Technology, Pittsburgh**, Presentation of a [scientific publication](#) and participation in workshop sessions.
- 12/2023 **MUM 2023: 22nd International Conference on Mobile and Ubiquitous Multimedia, Vienna**, Presentation of a [scientific publication](#) and participation in workshop sessions.
- 09/2023 **Fall IDC 2023, Venice** Presentation of a scientific poster and participation in an academic workshop.
- 06/2023 **Smart City Expo, Tampere**, Attendance of an industrial-academic exchange representing Tampere University.
- 03/2022 **German Pre-CHI 2022, Ulm**, Co-organizer and technical lead for more than 70 participants.

### Workshop Organization

- 03/2027 **MixHAI-XR 2027: Mixed Human-AI Experiences in eXtended Reality**, Co-organizer of a full-day workshop at the ACM International Conference on Intelligent User Interfaces (IUI) 2027 on technology-mediated human representation and human-AI interaction in XR (conditionally accepted).

### Peer-Reviewing

- 05/2026 **Special Recognitions for Outstanding Reviews**, The 39th Annual ACM Symposium on User Interface Software and Technology (UIST)

## Academic Activities (continued)

|            |                                                                                                                                                                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12/2025    | <b>Associate Chair (AC)</b> , ACM International Conference on Interactive Media Experiences (IMX) 2026                                                                                                                                              |
| 11/2025    | <b>Program Committee (PC) Member</b> , ACM International Conference on Intelligent User Interfaces (IUI) 2026                                                                                                                                       |
| 09/2025    | <b>Special Recognitions for Outstanding Reviews</b> , 7th International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications 2025                                                                                    |
| 05/2024    | <b>Special Recognitions for Outstanding Reviews</b> , ACM CHI Conference on Human Factors in Computing Systems 2024                                                                                                                                 |
| Since 2023 | <b>Reviewing for 15+ Conferences and Journals</b> , including: CHI 2024, 2025, 2026; CHI LBW 2024, 2025; IUI 2025, 2026; AutomotiveUI 2024, 2025, 2026; UIST 2024, 2026; and the International Journal of Human-Computer Studies (IJHCS), Elsevier. |

## Teaching & Supervision

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|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Master's Theses</b>     | <a href="#">Lina Weilke</a> , now PhD student at Porsche AG; <a href="#">Raisa Avadieva</a> , now PhD student at Mercedes-Benz Tech Motion GmbH; <a href="#">Kayoon Kim</a> |
| <b>Project Groups</b>      | 30 students at Ulm University from the programs Media Informatics, Informatics, and Software Engineering                                                                    |
| <b>Bachelor's Students</b> | Three bachelor's students at Ulm University and Porsche AG                                                                                                                  |
| <b>Working Students</b>    | Three working students at Porsche AG                                                                                                                                        |

## Skills

|           |                                                                                                                                                                        |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Languages | Strong reading, writing and speaking competencies for German, English (C2-Level), and French (B2-Level); Basic skills for Italian, Spanish, and Swedish (A1/A2-Level). |
| Coding    | Python, C# (specifically with Unity3D), Java, R, JavaScript (React), HTML/CSS, $\LaTeX$                                                                                |
| Research  | Quantative and qualitative data analysis with R and Python; Planning and conducting user studies                                                                       |
| Teaching  | Proficient leadership of international research projects; Supervision of various types of student groups (dual, bachelor's, master's)                                  |

## Research Publications

- J. H. Belz**, R. Avadieva, E. Rukzio, and T. Grosse-Puppenthal, "Genx: Device orchestration for multimodal generative experiences in ubiquitous systems," in *IMX '26: Proceedings of the 2026 ACM International Conference on Interactive Media Experiences*, Association for Computing Machinery, 2026.  
 DOI: [10.1145/3788851.3805008](https://doi.org/10.1145/3788851.3805008).
- J. H. Belz**, K. Kim, E. Rukzio, and T. Grosse-Puppenthal, "Sim-dse: Mediating multi-user orchestration in cars through simulation-augmented decision space exploration," in *AutomotiveUI '26: Adjunct Proceedings of the 18th International ACM Conference on Automotive User Interfaces and Interactive Vehicular Applications*, Poster, Association for Computing Machinery, 2026.
- J. H. Belz**, L. M. Weilke, A. Winter, P. Hallgarten, E. Rukzio, and T. Grosse-Puppenthal, "Story-driven: Exploring the impact of providing real-time context information on automated storytelling," in *Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology*, 2024, pp. 1–15.  
 DOI: [10.1145/3654777.3676372](https://doi.org/10.1145/3654777.3676372).

- 4 M. Colley, O. Speidel, J. Strohbeck, J. O. Rixen, **J. H. Belz**, and E. Rukzio, “Effects of uncertain trajectory prediction visualization in highly automated vehicles on trust, situation awareness, and cognitive load,” *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, vol. 7, no. 4, pp. 1–23, 2023.  DOI: [10.1145/3631408](https://doi.org/10.1145/3631408).
- 5 L.-M. Meinhardt, **J. H. Belz**, M. Rietzler, and E. Rukzio, “Balancing the digital and the physical: Discussing push and pull factors for digital well-being,” *arXiv preprint arXiv:2305.12513*, 2023.  DOI: [10.48550/arXiv.2305.12513](https://doi.org/10.48550/arXiv.2305.12513).
- 6 J. O. Rixen, **J. H. Belz**, L.-M. Meinhardt, J. Gugenheimer, and E. Rukzio, “Exploring the effects of head-mounted augmented reality on helping behaviour,” in *Proceedings of the 22nd International Conference on Mobile and Ubiquitous Multimedia*, 2023, pp. 440–455.  DOI: [10.1145/3626705.3627969](https://doi.org/10.1145/3626705.3627969).
- 7 M. Colley, **J. H. Belz**, and E. Rukzio, “Investigating the effects of feedback communication of autonomous vehicles,” in *13th International Conference on Automotive User Interfaces and Interactive Vehicular Applications*, 2021, pp. 263–273.  DOI: [10.1145/3409118.3475133](https://doi.org/10.1145/3409118.3475133).
- 8 M. Colley, M. Lanzer, **J. H. Belz**, M. Walch, and E. Rukzio, “Evaluating the impact of decals on driver stereotype perception and exploration of personalization of automated vehicles via digital decals,” in *13th International Conference on Automotive User Interfaces and Interactive Vehicular Applications*, 2021, pp. 296–306.  DOI: [10.1145/3409118.3475132](https://doi.org/10.1145/3409118.3475132).

## Under Submission

- 1 **J. H. Belz**, B. A. Baader, R. Avadieva, L. M. Weilke, E. Rukzio, and T. Grosse-Puppendahl, “Citycompass: Self-determined urban exploration with loss-averse nudging,” Under Submission at MUM’26: International Conference on Mobile and Ubiquitous Multimedia, 2026.
- 2 **J. H. Belz**, P. Hallgarten, L. M. Weilke, A. Winter, M. R. R. Hastall, E. Kasneci, T. Grosse-Puppendahl, and E. Rukzio, “A knowledge creator’s perspective on design and practice of using personified conversational agents as knowledge proxies,” Under Submission at MUM’26: International Conference on Mobile and Ubiquitous Multimedia, 2026.
- 3 **J. H. Belz**, M. Rädler, B. A. Baader, E. Rukzio, M. Colley, and T. Grosse-Puppendahl, “Blending music with context information through embedded notifications in mobility settings,” Under Submission at CHI’27: ACM CHI Conference on Human Factors in Computing Systems, 2026.