

Malte Josten

[✉ malte.josten@gmail.com](mailto:malte.josten@gmail.com)

[linkedIn linkedin.com/malte-josten/](https://www.linkedin.com/in/malte-josten/)

maltejosten.com

Work Experience

University of Duisburg-Essen (Duisburg, Germany)	2020/04 - today
<i>Research Assistant, full-time</i>	2023/06 - today
<ul style="list-style-type: none">[QuantumNRW] Conceptualizing new teaching concepts to introduce school and college students to quantum computing[QuantumNRW] Developed an augmented reality app for iOS devices using Unity and C#, and created 3D-models and animations of quantum computing processes and principles.[FooSH] Developed a Java Spring Boot Framework to connect arbitrary outcome-oriented (AI-driven) prediction models to an existing smart home system by providing necessary abstractions and a sophisticated REST API. This enables users to define goals (outcomes) instead of multiple instructions, to ultimately reach a desired smart home state.Continued work on the projects hKI-Chemie and Boarding	
<i>Research Assistant, part-time</i>	2022/10 - 2023/05
<ul style="list-style-type: none">[hKI-Chemie] Developed a visualisation tool in form of a web application using JavaScript, HTML, and CSS to evaluate user behaviour during AI nudging studies[hKI-Chemie] Developed a cross-platform, AI-assisted web tool for route-planning of cargo wagons in an industrial rail park using a JavaScript/HTML frontend and Python backend[Boarding] Project management, development, and administration	
<i>Student & Scientific Assistant, part-time</i>	2020/04 - 2022/09
<ul style="list-style-type: none">[AR-InGo] Developed an augmented reality app for iOS devices using Unity and C#, incorporating 3D-models of scientific instruments and experiments (at the nanometer level) created with Blender.Teaching and tutoring students in the courses Computer Architecture, Computer Networks and Communication Systems, Internet Technologies and Web Engineering, and Operating Systems.	
Freelance Web Developer (North Rhine-Westphalia, Germany)	2021/12 - today
<i>Freelancer</i>	
<ul style="list-style-type: none">Designing, deploying, and maintaining websites using the WordPress ecosystem	
Netto Marken-Discount (Mülheim an der Ruhr, Germany)	2017/10 - 2019/10
<i>Temporary Retail Worker, part-time</i>	
Krankikom GmbH (Duisburg, Germany)	2015/01 - 2015/02
<i>Internship, full-time</i>	
<ul style="list-style-type: none">Web design, project management and administration, and agile software development	

Education

University of Duisburg-Essen (Duisburg, Germany)	2017/10 - today
<i>PhD Student (Dr.-Ing.) at the chair for Distributed Systems</i>	2024/01 - today
<ul style="list-style-type: none">Research areas: (Explainable) Security in Distributed Systems	
Master of Science in Applied Computer Science	2021/04 - 2023/12
<ul style="list-style-type: none">Final Grade: 1.3 (German) / 3.7 (GPA) - with distinctionFocus: Distributed, reliable systemsThesis: "FooSH: A Framework for outcome-oriented Smart Homes" - Grade: 1.0 (German, equivalent to 4.0 GPA)	
Bachelor of Science in Applied Computer Science	2017/10 - 2021/03
<ul style="list-style-type: none">Final Grade: 1.6 (German) / 3.4 (GPA)Thesis: "Development of an augmented reality app for iOS devices to control IoT devices" - Grade: 1.0 (German, equivalent to 4.0 GPA)	

Projects

EIN Quantum NRW	2024/01 - today
Developing a modern and digital education concept for school and university students to introduce them to the world of quantum computing.	
Boarding: Automated Attendance Checks	2022/09 - today
Developing a GDPR and Common Criteria (EAL 4+) compliant cross-platform mobile application for automated attendance checks for university-related events, e.g., exams.	
hKI-Chemie: Human-centered AI in the chemical industry	2022/06 - 2024/06
Researching and developing self-explainable AI solutions to:	
• Optimize processes with the help of AI-based process parameter evaluation	
• Support employees in identifying process problems at an early stage and selecting suitable solutions	
• Optimize availability of machine-learned connections across shifts and personnel changes	
AR-InGo: Augmented Reality for Engineering	2020/01 - 2022/04
Developed a modern and digital education concept for school and university students visiting the NanoSchoolLab. The concept provides easily comprehensible 3D models of complex scientific instruments and experiments (including SEM, STM, and solar cells), and uses gamification mechanics to encourage a playful learning experience.	

Activities

Reviewer	International Conference on Intelligent Environments	2025
	International Conference on Pervasive Computing and Communications	2025
Web Chair	International Conference on Internet of Things	2024
Organiser	International Workshop on Negative Results in Pervasive Computing	2026
	International Workshop on Longevity and Sustainability of IoT Systems	2025
	International Workshop on Security and Privacy-Preserving AI/ML	2025
	International Workshop on Negative Results in Pervasive Computing	2025
	International Workshop on Longevity and Sustainability of IoT Systems	2024
	International Workshop on Negative Results in Pervasive Computing	2024
Member	Appointment Committee, W3 Professorship "Verification of Complex Systems"	10/2024 - 10/2025
	IEEE CS SYP Micro Mentoring	09/2024 - today

Skills

Languages

- German (Native)
- English (Full professional proficiency)
- French (Elementary proficiency // B1, though quite some time ago)
- Mandarin (Elementary proficiency // HSK 1)