Julia Hertel

Curriculum Vitae

I develop and study augmented reality applications for professionals in industry and infrastructure, together with industry partners, from requirement analyses to field studies.

Extended Reality · Augmented Reality · User-centered Development · Field Studies · Visualization · Perception

Work Experience

2020 – 2026

University of Hamburg

Research associate

I work in several third-party funded projects in close collaboration with industry partners. I am also involved in teaching and supervise theses.

2018 – 2020

Fraunhofer Center for Maritime Logistics and Services

Student research assistant

Development of an XR teleoperation interface for remote-controlling tugboats in the research project FernSAMS.

2017 – 2018

University of Hamburg

Student research assistant

Development of Augucation, a web-based platform for interactive applications that supplement lecture content.

Education

2020 – 2026

University of Hamburg

PhD

Dissertation: "Task Assistance Beyond the Screen – Investigating Augmented Reality to Support Infrastructure Professionals in Planning and Maintenance Contexts"

Dissertation submitted, defense planned for November 2026.

2016 – 2020

University of Hamburg

M.Sc. Computer Science

2013 – 2016

University of Hamburg

B.Sc. Human-Computer Interaction

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julia-hertel.de

LinkedIn

Research Projects

2025 – 2026

EU Horizon

PRESENCE: A toolset for hyper-realistic and XR-based human-human and human-machine interactions

Co-leading the technical committee; intelligent virtual humans; user-centered evaluation.

2023 – 2025

BMV

HafenplanZen: Strategic port planning based on digital twins

Development; 3D visualization and interaction; user-centered evaluation.

2023 – 2024

BMFTR

RESCUE-MATE: Dynamic situation creation and support for rescue forces in complex crisis situations

Proposal writing; requirement analysis.

2022 – 2025

Commissioned by Hamburger Energienetze via HITeC

AR Inspection Support for Gas Facilities

Requirement analysis; prototyping; field evaluation.

2020 – 2023

BMBF

WizARd: Knowledge networking and collaboration through augmented reality in production-related services

Visualization and interaction paradigms; AR/VR prototyping.

Skills

Methods

Prototyping and development; user studies, especially field studies; co-design with end-users and stakeholders; perception experiments; systematic literature reviews.

Technology

Augmented and virtual reality headsets, smartphones, multi-touch tables, Unity, C#, Python, R.