MAX PASCHER

HUMAN-ROBOT INTERACTION RESEARCHER

CONTACT

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max-pascher

@maxpascher

QUALIFICATIONS & EXPERTISE

Languages

German - native

English - C2

Spanish - A2

Professional

Python, C/C++, C#, obj-C, Java

Unity, Unreal Engine, ROS

App Development Android/iOS

Server Administration

MATLAB, Simulink

SPSS, R

Personal

Int. Coastal Boat Licence

SSI AOW Scuba Instructor

EDUCATION

10 / 2018 – 07 / 2024

Ph.D (Dr. rer. nat.) Human-Robot Interaction

University of Duisburg-Essen
Germany

Grade: magna cum laude (very good)

An interaction design for AI-enhanced assistive Human-Robot Collaboration

09 / 2013 – 08 / 2015

MSc Distributed Information Systems

Westphalian University of Applied Sciences I Germany

Grade: 1.1 (very good) with Distinction

Conception and prototypical realisation of a software architecture for a distributed system for recording, processing and analysis of energy consumption data

09 / 2008 – 08 / 2011

BSc Information Technology

University of Applied Sciences
Gelsenkirchen I Germany

Grade: 2.2 (good)

Process optimisation of a changing system for coffee roasting plants under a continuous analysis of the weighing process

WORK EXPERIENCE

08 / 2024 – Ongoing

Postdoctoral Researcher

TU Dortmund University I Germany

Lead and contribute to research projects on inclusive HRI, support Ph.D and Master students, and manage the XR Simulation and Robotics & Physical Prototyping labs

MAX PASCHER

10 / 2017 – 07 / 2024

Research Assistant

Westphalian University of Applied Sciences & Technical University Dortmund I Gelsenkirchen & Dortmund | Germany

Working in two BMBF funded research projects (MobILe and DoF-Adaptiv) in the field of Human-Computer Interaction and Human-Robot Interaction

02 / 2015 – 10 / 2017

Research Assistant

Westphalian University of Applied Sciences I Bocholt | Germany

Working in a BMBF-funded research project (ZELIA) and conducting several projects in the scope of Mobile and Ubiquitous Computing

02 / 2011 – 02 / 2016

Development Engineer

PROBAT-Werke, Gimborn Maschinenfabrik GmbH | Germany

PLC programmer and engineer for industrial coffee roasting machines. Application programmer for production data and exchange with resource planning software

08 / 2005 – 06 / 2008

Fast-trek Apprentice Electronics Technician

Siemens Home and Office Communication Devices GmbH & Co. KG | Germany

Fundamentals of electrical engineering and precision mechanics, circuit board design and construction, programming of programmable logic controllers, prototype construction

VOLUNTEERING

03 / 2009 – Ongoing

International Rescue Expert

Bundesanstalt Technisches Hilfswerk, SEEBA I Germany

Rescue expert and SAR commander for the German Emergency Quick Response Unit for World-wide Disasters (SEEBA)

03 / 2003 – Ongoing

Rescue Expert

Bundesanstalt Technisches Hilfswerk Bocholt/Borken I Germany

Several roles within the Quick Response Unit of the THW, including youth group leader, infrastructure & rescue expert and general group leader

MAX PASCHER

SCIENTIFIC SERVICES

Demos & Posters Chair
EICS 2025

Proceedings Chair
MuC 2024 | MuC 2025

Web Chair
CHI PLAY 2023

Student Volunteer
MUM 2017 I MuC 2022 I CHI 2023 I MobileHCI 2023

PROGRAM COMMITTEE

ACM International Conference on Human Factors in Computing Systems
(LBW-Track) I 2023 I 24

ACM International Conference on Tangible, Embedded and Embodied Interaction
(WiP Track) I 2023

Mensch und Computer (ACM In-Cooperation)
(Full Paper) I 2024

EXTERNAL REVIEW

ACM International Conference on Human Factors in Computing Systems
CHI 2018 I 19 I 20 | 21 | 22 | 23 I 24 | 25

ACM / IEEE Conference on Human-Robot Interaction
HRI 2023 I 24 | 25

ACM User Interface Software and Technology Symposium
UIST 2022 I 24

Nordic Conference on Human-Computer Interaction
NordiCHI 2022 I 24

Mensch und Computer (ACM In-Cooperation)
MuC 2019 I 20 I 21 I 22 | 23 I 24

IFIP TC.13 International Conference on Human-Computer Interaction
INTERACT 2019 I 21

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SELECT PUBLICATIONS

PACM-HCI (EICS) 2024
Paper Author: AdaptiX – A Transitional XR Framework for Development and Evaluation of Shared Control Applications in Assistive Robotics I **Best Paper Award**

HRI 2024
Workshop Co-Organiser: Virtual, Augmented, and Mixed Reality for Human-Robot Interaction (VAM-HRI)

RO-MAN 2023
Paper Author: In Time and Space: Towards Usable Adaptive Control for Assistive Robotic Arms

CHI 2023
Paper Author: How to communicate Robot Motion Intent: A Scoping Review

CHI 2023
LBW Author: HaptiX: Vibrotactile Haptic Feedback for Communication of 3D Directional Cues

HRI 2023
VAT-Workshop Co-Author: Understanding Shared Control for Assistive Robotic Arms

AVI 2022
Poster Author: Adaptive DoF: Concepts to Visualize AI-generated Movements in Human-Robot Collaboration

INTERACT 2021
Paper Author: Recommendations for the Development of a Robotic Drinking and Eating Aid - An Ethnographic Study

INTERACT 2019
Demo Author: SwipeBuddy: A Teleoperated Tablet and eBook-Reader Holder for a Hands-Free Interaction

CHI 2019
Paper Co-Author: Around the (Virtual) World: Infinite Walking in Virtual Reality Using Electrical Muscle Stimulation

HRI 2018
VAM-Workshop Co-Author: Opportunities and Challenges in Mixed-Reality for an Inclusive Human-Robot Collaboration Environment

MAX PASCHER

STUDENT ADVISING

Supervisor and 2nd Examiner for Master Thesis at TU Dortmund University

Trust in AI-supported Technical Systems for People with Visual Impairments and Blindness

Supervisor for Master Thesis at University of Duisburg-Essen

Effects of Different Visual Directional Cues of an Assistive Robotic Arm on Safety and User Acceptance

Supervisor for Bachelor Theses at University of Duisburg-Essen

Qualitative Comparison of Assistive Input Devices for Controlling a Robotic Arm in Everyday Life

Exploring Interaction and Intervention Communication Language for Assistive Robots in Domestic Environments

Supervisor for Master Theses at Westphalian University of Applied Sciences

Motion Intent of AI-Supported Assistive Robots: Exploring Interaction and Visualization Concepts in a VR Simulation Study

Communication and Mapping of Directions in 3D Space utilizing Vibrotactile Feedback

Supervisor for Bachelor Theses at Westphalian University of Applied Sciences

Communication of a Robot's Intention to Move through Implicit Hints in Augmented Reality

Conception, Design, and Evaluation of 2D Directional Cues for the Communication of Robot Movement Intentions

Development and Evaluation of Discrete and Continuous Input Control for AI-supported Assistive Robotic Arms

Exploring Natural Language Interaction with a Multi-Robot System in a Virtual Reality Simulation

PATENT

Inventor of: System and Method for Providing an Object-related Haptic Effect
German Patent and Trade Mark Office (DPMA)
File number: DE102022122173B4