# Senior UX Researcher / Human Factor Engineer

Senior UX Researcher blending technical expertise, human-centered design, and mixed methods to deliver data-driven insights. Led cross-functional teams across VR, robotics, and AI, synthesizing complex findings into actionable recommendations and delivering user-centered solutions at scale.

# **Professional Experience**

# LMU Munich

HCI | UX Researcher

- Led cross-functional UX projects (3–10 members) using Agile methods, culminating in 30+ co-authored publications.
- Designed and implemented large-scale experiments & online surveys (50K+ lines in Python, JS, R), enabling ٠ robust data-driven insights.
- Conducted 50+ hours of qualitative research (interviews, focus groups), translating findings into user-centered design improvements.
- Developed interactive prototypes (robotics, VR) with Python, C#, C++ (100K+ lines), validating feasibility and • refining user flows.
- Created and delivered 700+ hours of course content for Master's/Bachelor's students, bridging research to practice in HCI.
- Supervised 30+ junior researchers through weekly reviews and pair programming, fostering technical growth . and academic excellence.
- Optimized internal workflows by digitalizing processes (e.g., automated pipelines), reducing maintenance workload by 60%.

# **Aalto University**

Visiting Researcher

- Mentored two junior researchers in human AI interaction and virtual reality, providing weekly guidance and feedback sessions, resulting in a co-authored paper accepted at a top HCI venue.
- Managed multiple research projects on emerging VR/AI technologies, collaborating with diverse teams to • publish findings in leading conferences.
- Coordinated with faculty and industry partners to drive innovation in Al-enhanced VR, expanding the department's research scope.

# The HIVE LAB

Research & Innovation Lead

- Led cross-lab collaborations between academic and startup stakeholders, organizing strategic workshops and hackathons, accelerating product innovation in emerging tech.
- Identified skill gaps across multiple R&D projects, implemented targeted training sessions with industry experts, boosting solution quality for client deliverables.
- Managed a €2.74M shared grant and oversaw resource allocation, ensuring efficient lab operations and • maximizing research output.
- Implemented protocols during COVID-19, enabling project continuity and maintaining milestone delivery despite lockdown constraints.

# INRIA

Research Associate

- Developed and conducted user studies on haptic perception and user experience (UX), integrating Unity3D and robotic haptic devices for immersive testing.
- Applied psychophysical methods to analyze visuohaptic sensory feedback, driving insights that improved XR product design.

# Petrobras

UX Researcher

- Designed and prototyped physical UIs for offshore pipeline-control robots, applying safety-critical design principles, reducing operational risk on oil platforms.
- Engineered and documented a remote-control UI/UX for undersea pipeline robots, contributing to a U.S. patent • on intervention drive systems.

# Munich, BY, Germany

Sep 2019 - Present

## Munich, BY, Germany

Sep 2019 - Jun 2022

Jan 2019 - Jul 2019

Porto Alegre, RS, Brazil

Mar 2017 - Jul 2019

Rennes, France

### Espoo, Finland Jun 2024 - Jul 2024

Proposed, supervised, and implemented new product features based on user feedback analyses, enhancing usability and accelerating deployment in explosive-environments.

# **Education**

## Ludwig-Maximilians-Universität München

PhD, Human Computer Interaction

- Researching behavioral and physiological impacts of AI technologies in daily life.
- Investigating social acceptance of AI and its influence on user decision-making, resulting in multiple peer-reviewed publications.

### Universidade Federal do Rio Grande Do Sul

Master's, Computer Science

- Studied perceptual boundaries of tactile technologies for smartphones and AR
- Engineered prototype devices manipulating users' tactile perception in mobile settings.

## Instituto Tecnológico Metropolitano de Medellin

Bachelor's, Mechatronic Engineering

Computationally modeled thermal phenomena to inform product design

# Skills

**UX Research Methods:** User Interviews, Hypothesis Testing, Surveys, Usability Testing, A/B Testing, Focus Groups, User Journeys, Contextual Inquiry, Mixed-Methods

**Research Tools & Technical Skills:** Figma, Google Analytics, SQL, Machine Learning, C#, Qualtrics, R, Python **Analysis & Insights:** Thematic Analysis, Grounded Theory, Affinity Mapping, Statistical Testing **Team Leadership:** Mentoring, Project Planning, Cross Functional Collaboration, Budget Management, Agile **Languages:** English (Fluent), Spanish (Fluent), Portuguese (Fluent), German (Intermediate)

# **Selected Projects**

### AI and Me Exhibitions at Multiple Museums

Lead Researcher, Project Manager

- Led the end-to-end design, development, and deployment of an interactive exhibition where visitors co-created children's books with AI, fusing concept design, backend engineering, and visual art for human-AI collaboration.
- Implemented data collection and user analytics (observational + user testing), investigating how AI affects visitors' sense of ownership in creative processes.
- Demonstrated the exhibition across major cultural venues (e.g., Alte Pinakothek Munich, Deutsches Museum Munich, Deutsches Museum Bonn), garnering extensive public engagement and contributing to new insights on Al-driven user experiences.

## **Decision-Making in Human-AI Collaboration**

Lead Researcher

- Conducted a series of EEG-supported user studies exploring how believing an app is AI-driven influences user risk-taking behavior.
- Found that high AI expectations (even when primed with negative cues) lead users to perceive the system's performance as superior and take more risks, revealing powerful cognitive biases.
- Published and presented findings at top HCI conferences (CHI, CHB) and featured in 30+ online science portals, expanding discussion on trust and bias in AI.

# **Public Workshops, Tutorials & Talks**

- Workshop | Evaluating Human-AI Interaction | CHI24 | Hawaii, US
- Workshop | Human Augmentation Immediate Issues | Cognitive Augmentation Seminar | Dagstuhl, Germany
- Workshop | Haptic Visual Interfaces: From Theory to Prototyping | Advanced Visual Interfaces | Rome, Italy
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- Workshop| Engaging with the arts in XR BMBF, The Hive-Lab | Munich, Germany
- Additional Conference Talks at CHI25 (Japan), CHI23 (Germany), AHS25 (UAE), ICMI24 (Costa Rica), mHCI24 (Australia), ISMAR24 (USA), Ubicomp & ISWC23 (Mexico), ISS22 (New Zealand), MuC22 (Germany), among others.

Sep 2019 - May 2025

Mar 2017 - Jul 2019

Jul 2010 - Nov 2016

Nov 2023 - Mar 2025

Nov 2022 - Present