

Senior UX Researcher with **7+ years of experience** leading **mixed-methods** research that informs **product strategy** in AI-driven, robotics, and immersive systems. I translate complex technical challenges into **user-centered insights that shape roadmaps, de-risk innovation, and drive cross-functional alignment.**

UX · AI · USER · PRODUCT RESEARCH · INTERACTION DESIGN · BEHAVIORAL ANALYSIS · EXPERIMENT DESIGN

WORK EXPERIENCE

SENIOR RESEARCH SCIENTIST

LMU Munich · Mar 2025 - Now · Munich, Germany

- Defined the human-AI interaction research strategy and ethical framework for a €2.5M ERC-funded initiative.
- Mentored researchers (Bs., Ms., PhD), and established review structures to support research prioritization and execution quality.
- Led cross-project prioritization initiatives, aligning research pipelines with strategic goals and influencing investment and execution decisions.

RESEARCH SCIENTIST

LMU Munich · Dec 2022 - Feb 2025 · Munich, Germany

- Led 30+ UXR initiatives, translating user insights into product strategy across AI and robotics, impacting roadmap design and prioritization.
- Scaled research operations by mentoring 40+ researchers (Bs., Ms.), increasing project throughput and research quality.
- Forged partnerships with industry leaders in automotive and robotics translating their core product challenges into targeted research.

RESEARCH ASSOCIATE

Technology, Human-Systems & Experience Lab · Jun - Jul 2024 · Espoo, Finland

- Mentored junior researchers in human-AI interaction and coordinated with faculty and industry partners to drive innovation in AI-enhanced VR.

PROJECT MANAGER

The HIVE LAB - LMU Munich · Dec 2021 - Nov 2022 · Munich, Germany

- Managed a €2.74M shared project ensuring efficient lab operations and maximizing know-how generation and transfer.
- Led cross-lab collaborations between academic and startup stakeholders, accelerating product innovation in emerging tech.
- Identified skill gaps across R&D projects, implemented targeted training, boosting solution quality for deliverables and product research.

UX RESEARCHER

LMU Munich · Sep 2019 - Nov 2021 · Munich, Germany

- Designed and implemented large-scale experiments & online surveys.
- Developed high-fidelity interactive prototypes in Python, C#, and C++ to validate technical feasibility, de-risk novel interaction concepts.

VISITING RESEARCHER

Rainbow Sensor-based Interactive Robotics · Jan - Jul 2019 · Rennes, France

- Conducted user studies on haptic perception, delivering insights that improved XR product design.

CORE SKILLS

RESEARCH METHODS

Mixed-methods · Usability testing · A/B testing · Surveys · Bayesian · Interviews · ROI analysis · Causal inference · Quantitative Methods · PyTorch

LEADERSHIP

Stakeholder alignment · KPI reporting · Roadmap influence · Budget management · Mentoring · Cross-functional collaboration · Agile

ANALYSIS & PROTOTYPING

Data visualization · Power BI · Statistical testing · Regression analysis · Psychometrics · Figma · Python · C++ · R · Unity3d · SQL · Tableau · Google Analytics

EDUCATION

PHD IN HCI

Ludwig-Maximilians University, Germany
2019 - 2025

MASTER'S IN COMPUTER SCIENCE

Universidade Federal do Rio Grande do Sul, Brazil
2017 - 2019

BACHELOR'S IN MECHATRONICS

Instituto Tecnológico Metropolitano, Colombia
2010 - 2016

UX RESEARCHER

Petrobras · Mar 2017 - Jul 2019 · Porto Alegre, Brazil

- Engineered and documented a remote-control UI/UX for undersea pipeline robots, contributing to a U.S. patent (Patent Nr: US11920722) on intervention drive systems.
- Proposed, supervised, and implemented new product features based on user research, enhancing usability and accelerating deployment in explosive-environments.
- Designed and prototyped physical User Interface for offshore pipeline-control robots, applying safety-critical design principles, reducing operational risk on oil platforms.

SELECTED RESEARCH IMPACT

- Research on AI-induced overconfidence and placebo effects featured in 40+ international media discussions across 10+ countries.
- Influenced product direction for collaborative robotics systems
- Shaped AI-human interaction strategy for ERC-funded €2.5M initiative.

SELECTED PRODUCT IMPACT

BARE-HANDS HAPTICS FOR VIRTUAL REALITY

Lead Researcher · Team of 5 · With Reality Labs @ Meta (US) · 2020 - 2022

- Led development of a robotic-driven haptics system for room-scale VR interaction, expanding interaction space by 363x.
- Conducted psychophysical studies on dynamic ultrasound emitters to evaluate system performance.

NON-VERBAL COMMUNICATION WITH COBOTS

Senior UX Researcher · Team of 5 · With Honda Research (DE) · 2023 - 2025

- Pioneered a methodology to elicit and validate human-understandable expressions for non-humanoid robots, validated with over 270 users.
- Authored and validated the a 12-item psychometric instrument for HRI research, validating its construct with over 700 participants.

AI & ME: INTERACTIVE CO-CREATION EXHIBITION

Product Design & AI Lead · Team of 7 · With Design Futures (UK) · 2023 - 2025

- Led the end-to-end design and deployment of the interactive exhibition, implementing user analytics to investigate how AI co-creation impacts a visitor's sense of creative ownership.
- Demonstrated the exhibition across major cultural venues: Alte Pinakothek Munich, Deutsches Museum Munich, Deutsches Museum Bonn. With engagement from over 500,000 users.

DECISION-MAKING IN HUMAN-AI COLLABORATION

Lead Researcher · Team of 10 · 2022 - 2025

- Led EEG-supported studies revealing how AI expectations induce cognitive bias, influencing risk-taking behavior, findings featured in 40+ media outlets across 10+ countries.

SMART-AI GLASSES FOR AUGMENTED PERCEPTION

Research Lead · Team of 3 · 2025 - 2026

- Scoped and validated an AR thermal-vision product concept through psychophysical evaluation, confirming perceptual feasibility as a foundation for future product decisions.

AWARDS

- 1st Place (Top 1%): World Haptics Competition '19
- Inventor Award Brazil 2019 (Top 1%).
- Honorable Mention Award (Top 5%): Haptics Symposium '20
- Honorable Mention Award (Top 5%): ISWIC '21
- Honorable Mention Award (Top 5%): CHI '25.

LANGUAGES

- Spanish · Native
- English · Bilingual (C2)
- Portuguese · Bilingual (C2)
- German · Intermediate (B2)

TALKS & OUTREACH

I led workshops to bridge research and industry, training cross-functional teams with a focus on practical applications.

- Invited talk on AI societal perception @ MIT
- User expectations and the placebo effect of AI @ CHI
- Invited talk on Manipulating sensory perception for haptic design @AVI
- Invited talk on Designing for the next 5, 10, 50 years of physiological computing @Dagstuhl
- Design and prototyping of wearable with emerging materials @HIVELAB