

Thomas Kosch

SCIENTIST IN HUMAN-COMPUTER INTERACTION · MAKER · UX RESEARCHER · DATA ANALYST

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Summary

Thomas Kosch is a professor in the Human-Centered Computing Group at Utrecht University. His research focuses on implicit AI-driven physiological interfaces and user state predictions for human augmentation. He is experienced in designing user studies, quantitative and qualitative methods, machine learning, and prototyping. He successfully conducted and led research projects within scientific and industrial councils. In addition, he is regularly involved in program and organizational committees of top-tier human-computer interaction events at national and international levels.

Education

Utrecht University

PROFESSOR

- Design and evaluation of interfaces augmenting human abilities through artificial intelligence.
- Meta research in human-computer interaction.
- Supervision of PhD and university students.
- Funding acquisition.

Utrecht, NL

April 2022 - Present

TU Darmstadt

POSTDOC AT THE TELECOOPERATION LAB

- Design and implementation of physiological user interfaces that augment human capabilities using mixed reality.

Darmstadt, DE

July 2020 - March 2022

Ludwig-Maximilian University of Munich

PH.D. STUDENT AT THE HUMAN-CENTERED UBIQUITOUS MEDIA GROUP

- Thesis title: *Workload-Aware Systems and Interfaces for Cognitive Augmentation*.

Munich, DE

January 2016 - June 2020

University of Stuttgart

M.SC. IN SOFTWARE ENGINEERING

- Thesis title: *Real-Time Brain Mapping for Treating Substance Abuse using Neurofeedback*.

Stuttgart, DE

Oct. 2010 - Dec. 2015

B.SC. IN SOFTWARE ENGINEERING

- Thesis title: *Development of an Audio Input Toolkit for Multiple Sources*.

Skills

Prototyping and Data Analysis Python (Signal Processing, Machine Learning, Statistics), Prototyping & Making (Electronics, 3D Printing)

User Experience Research User Study Design, User-Centric System Evaluation, Quantitative & Qualitative Methods

Physiological Computing Electroencephalography, Eye Tracking, Electrodermal Activity, Heart Rate, Electromyography

Project Management Requirements Analysis, Task Delegation, Structured Presentation and Communication of Research Results

Languages German (First Language), Polish (Professional), English (Professional), Japanese (Elementary), French (Elementary)

Writing

Author of Scientific Publications

SELECTED PUBLICATIONS

International

January 2016 - Present

- Kosch et al., "The Placebo Effect of Artificial Intelligence in Human-Computer Interaction" in *ACM Transactions on Computer-Human Interaction*, New York, NY, USA, 2022.
- Bethge et al., "VEmotion: Using Driving Context for Indirect Emotion Prediction in Real-Time" in *Proceedings of the 34th Annual ACM Symposium on User Interface Software and Technology*, New York, NY, USA, 2021.
- Schneegass et al., "BrainCoDe: Electroencephalography-Based Comprehension Detection During Reading and Listening" in *Proceedings of the CHI Conference on Human Factors in Computing Systems*, New York, NY, USA, 2020.
- Kosch et al., "One Does not Simply RSVP: Mental Workload to Select Speed Reading Parameters using Electroencephalography" in *Proceedings of the CHI Conference on Human Factors in Computing Systems*, New York, NY, USA, 2020.
- Kosch et al., "Identifying Cognitive Assistance with Mobile Electroencephalography: A Case Study with In-Situ Projections for Manual Assembly" in *Proceedings of the 10th ACM SIGCHI Symposium on Engineering Interactive Computing Systems*, New York, NY, USA, 2018.
- Kosch et al., "Your Eyes Tell: Leveraging Smooth Pursuit for Assessing Cognitive Workload" in *Proceedings of the CHI Conference on Human Factors in Computing Systems*, New York, NY, USA, 2018.
- Kosch et al., "Look into my Eyes: Using Pupil Dilation to Estimate Mental Workload for Task Complexity Adaptation" in *Proceedings of the CHI Conference Extended Abstracts on Human Factors in Computing Systems*, New York, NY, USA, 2018.
- A full publication list can be found under www.thomaskosch.com/index.php/publications