



Dr.-Ing. KO WATANABE

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Trustworthy AI · HCI Researcher

« Postdoctoral Researcher at DFKI, specializing in trustworthy AI, HCI, multimodal sensing, medical AI, and learning analytics. »

Skills

Research

- Deep learning
- Multimodal sensing
- Trustworthy AI · Medical AI
- HCI study design

Engineering

- Python · JavaScript / TypeScript
- Swift · Kotlin · Ruby on Rails
- AWS / GCP · Docker
- Tobii · Pupil Labs

Languages

Japanese (native) · English (business level)
· German (daily use)

Key highlights

KI4Pol — SDS Group

Conducted R&D in the KI4Pol joint research project with the National Police Agency (details undisclosed due to NDA).

Mission KI — SDS Group

Lead developer of evaluation tooling for medical AI products in the federal Mission KI initiative.

LeCycl Project — SDS Group

Worked in education x AI on a learning support system designed for effective knowledge transfer.

ACM ETRA 2025 (BEST SHORT PAPER AWARD)

Received the Best Short Paper Award at ACM ETRA 2025 for research on gaze-based confidence detection.

Interests

Communities

Peer review and organizing: CVPR, CHI, ETRA, IUI, ISWC, MUM, Augmented Humans, IEEE SMARTCOMP

Application areas

Medical AI assurance, learning analytics, and multimodal interfaces for trustworthy HCI

Professional experience

Postdoctoral Researcher — DFKI GmbH	Dec 2024 – Present
Chief Technology Officer (CTO) — LOGOT UG	May 2024 – Present
Affiliate Assistant Professor (Concurrent) — NAIST	Apr 2026 – Present
Visiting Researcher (Concurrent) — OMU	May 2022 – Present
Technical Advisor — Mesh Inc.	Dec 2024 – Aug 2025
Technical Advisor — Affectify	Mar 2024 – Jun 2025
Software Engineer (MLOps) — Bcode	Sep 2024 – Dec 2024
Software Engineer (Backend Engineer) — Ichiroku	Feb 2024 – Dec 2024
Doctoral Researcher — DFKI / RPTU PsyberLab	Mar 2021 – Nov 2024
Software Engineer — DeNA Co., Ltd. (Pococha)	Apr 2019 – Mar 2021
Development Instructor (Swift / iOS) — TechPlayAcademy	Nov 2020 – Dec 2020
Software Engineer — Rakuten Group Inc.	Jan 2018 – Mar 2018

Education

RPTU Kaiserslautern-Landau — Germany	2021 – 2024
Ph.D. in Computer Science — Advisors: Prof. Andreas Dengel, Associate Prof. Shoya Ishimaru	
Nara Institute of Science and Technology (NAIST) — Japan	2017 – 2019
M.S. in Computer Science — Advisors: Prof. Keiichi Yasumoto, Associate Prof. Yutaka Arakawa	
Tokyo University of Agriculture and Technology — Japan	2013 – 2017
B.S. in Mechanical Engineering — Advisors: Prof. Venture Gentine	

Selected publications

- **Towards Facilitated Fairness Assessment of AI-based Skin Lesion Classifiers Through GenAI-based Image Synthesis** — WACV 2026
- **PupilSense: A Novel Application for Webcam-Based Pupil Diameter Estimation** — ETRA 2025 (BEST SHORT PAPER AWARD)
- **TKG-DM: Training-free Chroma Key Content Generation Diffusion Model** — CVPR 2024 (HIGHLIGHT PAPER)
- **Engauge: Engagement Gauge of Meeting Participants Estimated by Facial Expression and Deep Neural Network** — IEEE Access, 2023

Honors · Professional service

- **Awards:** Best Short Paper Award, ACM ETRA 2025
- **Funding:** CREST AIP Challenge · TOBITATE Exchange Scholarship · JASSO Scholarship
- **Program Committee / Chair:** CHI 2026 (Poster AC), CHI 2025 (LBW AC), AHs 2026 (Demo & Poster Chair), AHs 2025 (Demo Chair), ETRA 2025/26, IUI 2025/26, ISWC 2025, MUM 2025, IEEE SMARTCOMP 2024