

Ruben Hammele

PhD Candidate | Embodied AI · Robot Learning · World Models

PhD candidate in **embodied AI** and **robot learning**, researching world models and foundation models. First-author publication at **CoRL**, with hands-on experience developing and deploying learning-based systems on physical robots using ROS2 and simulation.

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PROFESSIONAL EXPERIENCE

PhD Candidate: Kiel University Embodied AI & Robotics World models and robot learning for real-world robotic autonomy Developing and evaluating learning-based systems in simulation and on physical robots First-author publication at CoRL 2026.	May 2026 – Present
PhD Candidate: University of Lübeck Research and teaching in machine learning. Specifically in information extraction and causal inference.	Sep 2025 – Apr 2026
CEO & Co-Founder: EcoCheck AI Systems & Entrepreneurship Spearheaded AI-powered CO ₂ accounting systems	Nov 2021 – Present
Freelancer: Software Development & AI Delivered custom AI-driven software solutions Provided specialized IT consulting for diverse clients	May 2022 – Aug 2025
Research Associate: Kiel University of Applied Sciences Conducted AI feasibility studies for companies in the area.	Oct 2022 – Jun 2023
Working Student: HSH Nordbank AG, Kiel Development of automated job control systems using Control-M, Shell and Java	Jul 2017 – Jun 2018
Apprenticeship: Helios Kliniken GmbH, Schleswig Software Engineering & SAP Enterprise development	Aug 2012 – Jun 2015

SELECTED RESEARCH

COOL: Curiosity-Driven Object Ownership Learning for Personalized Robotic Assistance First Author Embodied AI Personalized Robot Assistance Real-World Robotics ROS2	CoRL 2026
Hydra: A Navigation World Action Model with Discrete Latent Planning and Continuous Flow-Matching Execution Co-Author World Models Robot Navigation Real-World Robotics ROS	Submitted
PUSHER: Learning Vision-based Policies for Non-Prehensile Object Manipulation with Quadruped Robots Co-Author Reinforcement Learning Isaac Sim	Submitted
Evaluating Early Multimodal Fusion in Discrete Latent World Models for Robot Navigation Co-Author World Models	Submitted
Fire-Aware Navigation First Author Reinforcement Learning Isaac Sim	Work in Progress
BEHAVIOR 2026 Challenge Stanford First Author Vision-Language-Action Model Manipulation + Navigation	Work in Progress

EDUCATION

University of Lübeck <i>M.Sc. Entrepreneurship in Digital Technologies</i> , Grade 1.2 Focus: Machine Learning and Entrepreneurship	Oct 2019 – Nov 2021
Kiel University of Applied Sciences <i>B.Sc. Business Information Systems</i>	Mar 2017 – Sep 2019
Kiel University of Applied Sciences <i>B.A. Agricultural Economics</i> (85 ECTS completed)	Sep 2015 – Feb 2017