

EDUCATION	Ph. D. Computer Science MPI for Biological Cybernetics & Helmholtz Munich <i>Supervisor: Dr. Eric Schulz</i>	06.2023 –
	M. Sc. Neural and Behavioral Science University of Tübingen <i>Thesis: The acquisition of physical knowledge in neural networks</i> <i>Supervisors: Dr. Marcel Binz & Dr. Eric Schulz, MPI for Biological Cybernetics</i>	2019 – 2023
	B. Sc. Psychology University of Osnabrück <i>Thesis: The role of heartbeat during fast sensorimotor transformations</i> <i>Supervisors: Dr. Sven Ohl & Prof. Martin Rolfs, Humboldt-Universität zu Berlin</i>	2016 – 2019
RESEARCH INTERNSHIPS	Stanford University , Prof. Tobias Gerstenberg <i>Visual cognition task library</i>	02.26 – 04.26
	University of Tübingen , Prof. Felix Wichmann <i>Error consistency in humans and neural networks</i>	11.20 – 02.21
	University of Tübingen , Prof. Philipp Berens <i>Model comparisons in approximate Bayesian computation</i>	09.20 – 11.20
	Berlin School of Mind and Brain , Mind Brain Body Institute <i>Influence of cardiac cycle activity on perceived object distance</i>	11.18 – 12.18
	Humboldt-Universität zu Berlin , Dr. Sven Ohl <i>Influence of cardiac cycle activity on saccadic eye movements</i>	08.18 – 09.18
PROFESSIONAL EXPERIENCE	Student research assistant Dr. Eric Schulz, <i>MPI for Biological Cybernetics</i> Prof. Felix Wichmann, <i>University of Tübingen</i> Prof. Philipp Berens, <i>University of Tübingen</i> Prof. Thomas Staufenbiel, <i>University of Osnabrück</i>	01.22 – 01.23 04.21 – 12.21 03.20 – 08.20 04.18 – 09.19
	Teaching assistant Statistics I & II, <i>University of Osnabrück</i> Test theory, <i>University of Osnabrück</i> Research methods, <i>University of Osnabrück</i>	10.18 – 08.19 04.18 – 08.18 10.17 – 03.18
EXTERNAL FUNDING	International Research Fellowship for Computer Scientists (IFI) , DAAD <i>Research internship at Stanford University, Prof. Tobias Gerstenberg</i>	

- SUBMITTED Can vision language models learn intuitive physics from interaction?
L. M. Schulze Buschoff*, K. Voudouris*, C. Demircan, E. Schulz
Under review at ICML 2026
- PRE-PRINTS Next state prediction gives rise to entangled, yet compositional representations of objects
T. Saanum, **L. M. Schulze Buschoff**, P. Dayan, E. Schulz
arXiv
- PUBLICATIONS A foundation model to predict and capture human cognition
M. Binz, ..., **L. M. Schulze Buschoff**, ..., E. Schulz
Nature (2025)
- Testing the Limits of Fine-Tuning for Improving Visual Cognition in Vision Language Models
L. M. Schulze Buschoff*, K. Voudouris*, E. Akata, M. Bethge, J. B. Tenenbaum, E. Schulz
International Conference on Machine Learning (ICML 2025)
- metabench – A Sparse Benchmark to Measure General Ability in Large Language Models
A. Kipnis, K. Voudouris, **L. M. Schulze Buschoff**, E. Schulz
International Conference on Learning Representations (ICLR 2025)
- Visual cognition in multimodal large language models
L. M. Schulze Buschoff*, E. Akata*, M. Bethge, E. Schulz
Nature Machine Intelligence (2025)
- The Acquisition of Physical Knowledge in Generative Neural Networks
L. M. Schulze Buschoff, E. Schulz, M. Binz
International Conference on Machine Learning (ICML 2023)
- Trivial or Impossible—dichotomous data difficulty masks model differences (on ImageNet and beyond)
K. Meding*, **L. M. Schulze Buschoff***, R. Geirhos, F. A. Wichmann
International Conference on Learning Representations (ICLR 2022)
- WORKSHOP ImageNet suffers from dichotomous data difficulty
PUBLICATIONS K. Meding*, **L. M. Schulze Buschoff***, R. Geirhos, F. A. Wichmann
ImageNet: past, present, and future workshop (NeurIPS 2021 workshop)
- REVIEWING **Conferences**
ACTIVITY ICLR (*Top 200 Reviewer, 2026*)
ICML
Neurips
CogSci
Re-Align workshop at ICLR
World models workshop at ICML
Behavioral ML workshop at NeurIPS
- Journals**
Computational Brain & Behavior
- INVITED Causality In Cognition Lab, *Stanford University*
TALKS Enigma Project, *Stanford University*
CogToolsLab, *Stanford University*