

TIMO OESS

PERSONAL INFORMATION

Born in Germany, July 29, 1989

email oess.timo@gmail.com

website <https://oesst.github.io/>

ACADEMIC CAREER

<i>Doctoral Student</i>	2017-present	Universität Ulm, Ulm
	Cognitive Psychology/Neuroinformatics Doctoral student working on computational models for auditory perception supervised by Prof. Dr. Marc Ernst and Prof. Dr. Heiko Neumann.	
<i>Research Internship</i>	2015-2016	Junior Specialist, UCI, IRVINE, USA Junior research assistant at the cognitive anteater robotics laboratory (CARL) under the supervision of Prof. Dr. Jeffrey Krichmar working on computational models for navigation.
<i>Master of Science</i>	2014-2016	Technische Universität München, Munich Robotics, Cognition, Intelligence (M.Sc.) Focus on robotics and computational neuroscience. Passed with distinction.
<i>Athens Program</i>	November '14	Warsaw University of Technology, Warsaw One week intensive course on knowledge systems and their representations.
<i>Exchange Semester</i>	2012-2013	Norwegian University of Science and Technology, Trondheim Focus on machine learning, artificial intelligence and neuroscience.
<i>Bachelor of Science</i>	2010-2013	Universität Ulm, Ulm Computer Science (B. Sc) Passed with distinction. Secondary subject in medicine

PUBLICATIONS

2020

Journal **T. Oess**, H. Neumann and M.O. Ernst
Binaural Signal Integration Improves Vertical Sound Source Localization,
bioRxiv 2020. <https://doi.org/10.1101/2020.09.10.291468>

Journal **T. Oess**, M.O. Ernst, and H. Neumann,
*Computational principles of neural adaptation for binaural signal
integration*, PLOS Computational Biology 16(7): e1008020.
<https://doi.org/10.1371/journal.pcbi.1008020>

Journal **T. Oess**, M. Löhr, D. Schmid, Marc O. Ernst and H. Neumann,
*From near-optimal Bayesian Integration to Neuromorphic Hardware: A
neural network model of multisensory integration*, Frontiers in
Neurorobotics, <https://doi.org/10.3389/fnbot.2020.00029>

*Conference
Proceeding* **T. Oess**, M. Löhr, C. Jarvers, D. Schmid, and H. Neumann,
*A Bio-Inspired Model of Sound Source Localization on Neuromorphic
Hardware*, 2nd IEEE International Conference on Artificial Intelligence
Circuits and Systems, Genoa, Italy, Marc 23-25 2020.
<https://doi.org/10.1109/AICAS48895.2020.9073935>

2019

*Conference
Proceeding* **T. Oess**, M.O. Ernst, and H. Neumann,
*Computational investigation of visually guided learning of spatially
aligned auditory maps in the colliculus*, ISAAR'19, Auditory Learning in
Biological and Artificial Systems, Nyborg, Denmark, August 21-23 2019.
<https://proceedings.isaar.eu/index.php/isaarproc/article/view/2019-18>

2017

Journal **T. Oess**, J. Krichmar, and F. Röhrbein (2017),
*A Computational Model for Spatial Navigation Based on Reference
Frames in the Hippocampus, Retrosplenial Cortex and Posterior Parietal
Cortex*, Frontiers in Neurorobotics.
<https://doi.org/10.3389/fnbot.2017.00004>

2013

*Conference
Proceeding* M. Oubbati, **T. Oess**, C. Fischer, and G. Palm (2013).
*Multiobjective Reinforcement Learning Using Actor-Critic Framework
and Reservoir Computing*, Workshop in: Reinforcement Learning with
Generalized Feedback: Beyond Numeric Rewards.

SCHOLARSHIPS

Philipp-Matthäus-Hahn scholarship for talented students.

DAAD scholarship for international research internships.

PROFESSIONAL EXPERIENCE

<i>Foxim</i>	Aug'16-May'17	Co-Founder Foxim, COLOGNE	Co-founder and lead developer at Foxim. Foxim is a startup that develops intelligent chatbots for automated customer service using artificial intelligence.
<i>Technische Universität München</i>	Aug-Dec '14	Student Assistant, TUM, MUNICH	Assistance work in the Human Brain Project with the supervision of Dr. Florian Röhrbein at the Department of Robotics and Embedded Systems.
<i>Albstadtwerke</i>	Jan-Feb '14	Internship, ALBSTADTWERKE, Albstadt	Developing a customer related data base at the department of information technology.
<i>Universität Ulm</i>	2012 - 2013	Student Research Assistant, UNIVERSITÄT ULM	Working at the Department of Embedded Systems/Real-Time Systems
<i>Albstadtwerke</i>	Mar-Apr '12	Internship, ALBSTADTWERKE, Albstadt	Developing a software for regional power and water supply control at the department of information technology.

EXTRA CURRICULAR ACTIVITIES

2012-2013

Member of the open source campus group UlmAPI

2011-2013

Tutor for students in their first semester at the department of computer science. Support for students at the beginning of their studies.

Apr-Aug '12

Tutor for the course *Hardware Systems*. Teaching students required methods for solving exercises and correcting their solutions.

OTHER INFORMATION

<i>EDP Skills</i>	Python · Matlab · Blender · JavaScript · Tensorflow · C/C++ · Java · HTML · CSS · Latex
<i>Languages</i>	GERMAN · Mother tongue ENGLISH · Proficient, TOEFL iBT (105 points) C1 FRENCH · learning
<i>Personal Interests</i>	Outdoor activities (Climbing, hiking) · Winter sports (snowboarding) · Traveling (in particular Asia, USA) · Global politics, different cultures

October 19, 2020