

TIMO OESS

PERSONAL INFORMATION

Born in Germany, July 29, 1989

email oess.timo@gmail.com

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

ACADEMIC CAREER

<i>Akademischer Rat</i>	2021-present	Universität Freiburg, Freiburg Neurobiology and Neurotechnology Postdoctoral fellow in the group of Prof. Dr. Carsten Mehring working on computational models for motor control.
<i>Doctoral Student</i>	2017-2021	Universität Ulm, Ulm Cognitive Psychology/Neuroinformatics Dissertation: "From sound waves to locations : computational models for sound source localization in the early auditory pathway". (magna cum laude) Supervisors: Prof. Dr. Marc Ernst & 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) with the supervision of Prof. Dr. Jeff Krichmar
<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, 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 Neurobotics, <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 Neurobotics.
<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

Aug'16-May'17 Co-Founder Foxim, COLOGNE

Foxim

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 costumer 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 · JavaScript · Tensorflow · C/C++ · Java · HTML · CSS · Latex
<i>Languages</i>	GERMAN · Mothertongue ENGLISH · Proficient, TOEFL iBT (105 points) B2
<i>Personal Interests</i>	Outdoor activities (Climbing, hiking) · Winter sports (snowboarding) · Traveling (in particular Asia, USA) · Global politics, different cultures

February 1, 2022