



TIMO NACHSTEDT

DATE OF BIRTH

19.12.1987 in Clausthal-Zellerfeld

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ACADEMICAL EDUCATION & SCHOOL

since Jan 2014

Göttingen, Germany

Doctorate

International Max Planck Research School for Physics of Biological and Complex Systems, University of Göttingen

Neuronal mechanisms underlying the interaction of working and long-term memory

Network simulations with C++ and Python

Defence planned for November 2017

Oct 2010 - Mar 2013

Göttingen, Germany

M. Sc. Physics, 1.0 with honors

University of Göttingen

Focus: computational neuroscience and machine learning

Master thesis: "Adaptive neuronal oscillator with synaptic plasticity for robotic locomotion control"

Oct 2007 - Jul 2010

Göttingen, Germany

B. Sc. Physics, 1.1 with honors

University of Göttingen

Focus: particle physics

Bachelor thesis: "Reconstruction of Z and Higgs bosons in tau final states with the ATLAS detector"

Jul 2000 - Jun 2007

Gehrden, Germany

Abitur, 1.0 with honors

Matthias-Claudius-Gymnasium

Advanced level subjects: physics, mathematics

PRACTICAL EXPERIENCES

since Oct 2013

Göttingen, Germany

Research assistant

Third Institute of Physics

Organization of the student journal club and coordination of the research group seminar

Supervision of bachelor and master students

Giving lectures

Jan 2013 - Jun 2014

San Diego, CA, USA

Consultant

Brain Corp

Implementation of classical and neuronal algorithms for robotic locomotion control

Conception and implementation of a framework for virtual robot experiments

Remote activity with regular trips to the company headquarters, since October 2013 in part time

Jul 2011 - Dec 2011

Göttingen, Germany

Student assistant: database developer

Max Planck Institute for Dynamics and Self-Organization

Implementation of a data management tool based on PHP and MongoDB

Jul 2009 - Apr 2011

Göttingen, Germany

Student assistant: tutor

Faculty of Physics, University of Göttingen

Supervision of students and training groups

Courses: physics I, basic physical practical course, basics of experimentation

Jun 2009 - Jul 2009

Gdynia, Poland

Intern

TeleMobile Electronics

Market analysis of the mobile network operators in Germany, Austria and Switzerland

Development and characterization of an LC bandpass filter with variable resonant frequency

IT-SKILLS

C/C++	●●●●●●
Python	●●●●●●
PHP	●●●●●●
JavaScript	●●●●●●
HTML/XML/XSD	●●●●●●
AJAX	●●●●●●
MySQL	●●●●●●
MongoDB	●●●●●●
Linux/Unix	●●●●●●
Terminal/Bash	●●●●●●
Eclipse	●●●●●●
Office Software	●●●●●●

LANGUAGES

German	native language
English	business fluent TOEFL: 115/120 (2008)
French	basic knowledge DELFL (2005)

HOBBIES

Cycling	transalp
Dancing	latin and ballroom dance
Coding	gruppenwunsch.de sq100.org

RESEARCH STAYS

Jul 2012 - Aug 2012 <i>Kyoto, Japan</i>	Research collaboration University of Kyoto Application of the developed adaptive oscillator in a new type of snake robot Measurements with a motion-tracking system
Jul 2010 - Sep 2010 <i>Hamburg, Germany</i>	Summer student German Electron Synchrotron (DESY) Research project on the production of beauty quarks at the HERA particle accelerator

AWARDS

Dec 2013 <i>Göttingen, Germany</i>	Dr. Berliner-Dr. Ungewitter-Price Faculty of Physics, University of Göttingen Recognition of the excellent master degree
Jul 2006 & Jul 2007 <i>Hanover, Germany</i>	Winner of the Apollo 13 student competition University of Hanover Exercises from the fields of engineering and science

STIPENDS

Jan 2014 - Dec 2016 <i>Göttingen, Germany</i>	Doctoral scholarship International Max Planck Research School for Physics of Biological and Complex Systems Two-year study funding
Dec 2010 & Nov 2011 <i>Göttingen, Germany</i>	Federal stipend of Lower Saxony University of Göttingen One-time stipend for excellent academic achievements

CIVIC ENGAGEMENT

Jan 2014 - Jan 2016 <i>Göttingen, Germany</i>	Chairman Junge Union Kreisverband Göttingen District chapter of a large political youth organization Organization and administration of the board activities Organization of political and social events Keeping contact to subordinate and superior chapters, the CDU party and members of parliaments
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SELECTED PUBLICATIONS

May 2017	Nachstedt T and Tetzlaff C: Working memory requires a combination of transient and attractor-dominated dynamics to process unreliably timed inputs. Scientific Reports 7, 2017.
Mar 2017	Nachstedt T, Tetzlaff C, Manoonpong P: Fast dynamical coupling enhances frequency adaptation of oscillators for robotic locomotion control. Frontiers in Neurobotics 11, 2017.
May 2013	Nachstedt T, Wörgötter F, Manoonpong P, Ariizumi R, Ambe Y, Matsuno F: Adaptive neural oscillators with synaptic plasticity for locomotion control of a snake-like robot with screw-drive mechanism. Proceedings of the IEEE International Conference on Robotics and Automation (ICRA) 2013.