

Caroline Fischer

Curriculum Vitae



Education

- now
9/2015 **Phd Computational Neuroscience**, *Ludwig-Maximilians-Universität München*, Supervisor: Prof. Dr. Andreas Herz.
- 8/2015
9/2013 **Master Cognitive Neuroscience**, *Radboud Universiteit Nijmegen*, Grade: 1.0* (cum laude).
Master thesis "Synchronizing Back-propagation Activated Calcium Spikes: A Model for Attentional Control" (grade: 1.0*)
- 7/2013
10/2010 **Bachelor Cognitive Science**, *Universität Osnabrück*, Grade: 1.5.
Bachelor thesis "Optimization of Phase Synchrony in a Neural Network Simulating Visual Feature-binding" (grade: 1.7)
- 2/2013
9/2012 **Semester Abroad in Artificial Intelligence**, *Radboud Universiteit Nijmegen*.
- 2010/6 **Allgemeine Hochschulreife**, *Käthe-Kollwitz Gymnasium Halberstadt*, Grade: 1.8.

Experience

- 03/2017
11/2016 **Werkstudent**, *QAware GmbH*.

Publications

- [1] **Caroline Fischer**, Paul H. E. Tiesinga, Marije ter Wal, *Mechanisms for Synchronized Burst Firing in Pyramidal Cells using Oscillatory Inhibition: A Model for Attentional Control*, *BMC Neuroscience*, 2015.

Teaching

- Tutor **Mathematik für Biologen**, WS 15/16, WS 16/17.
Tutor **Seminar on Neural Dynamics**, SS 17.

Languages

- German native speaker
English fluent
Dutch fluent

* Conversion of grades (Dutch-German) according to <https://www.wiwi.uni-osnabrueck.de/>

IT Skills

Programming Languages

- advanced Python, Matlab, Neuron
- intermediate Java
- beginner C++, Html, Prolog

Software Experience

- advanced PyCharm, Jupyter, Eclipse
- intermediate Latex, Git, Inkscape
- beginner Vim

Udacity Courses

- Software Testing
- Software Development Process
- Web Development

Additional Commitment / Interests

- Member Greenpeace
- Executive Huiskamer ("Living room"): Organization of social gatherings with events like
Board concerts, discussions, gaming nights etc.
- Executive Stichting Veelstemmige Verhalen ("Foundation many-voiced stories"): Treasurer,
Board organization of the yearly concert of the project choir
- Hobbies Reading, playing saxophone in a big band, dancing (Tango Argentino, Salsa)



Selected Mathematical Courses

Course Name	Grade	Description
Linear Algebra 1 and 2	1.0*	
Mathematik für Anwender	2.3	
Elemente der Stochastik	1.0	
Multivariate Statistik	1.7	
Foundations of Logic	2.0	
Neurodynamics	1.0	Analysing ODEs in the context of neuron models
Bayesian Neurocognitive Modelling	1.0*	Applying (Bayesian) probability theory to neural modeling
Quantitative Brain Networks	1.0*	Graph theory

Selected Computer Science Courses

Course Name	ECTS	Description (Programming Language)
Informatik A	2.0	algorithms & data structures (Java)
Informatik B	1.3	object oriented programming (Java)
Machine Learning	1.7	(Matlab)
Statistical Machine Learning	1.0*	
Computer Vision	2.0	(Matlab)
Evolutionary Algorithms	2.3*	(Matlab)
Introduction to Artificial Intelligence	1.3	(Prolog)
Introduction to Computational Linguistics	2.3	(Python)
Introduction to High Performance Programming in C++	-	(C++)
Brain Computer Interfacing Practical Course	2.0*	Writing software to conduct an EEG experiment (Matlab)
Data Analysis in Cognitive Science	1.0	(Matlab)
Neuroinformatics	1.0	Probability theory, linear models for regression, classification
Computational Neuroscience	1.0*	Decoding, supervised and reinforcement Learning (Matlab)
Advanced Computational Neuroscience	1.0*	Control theory

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