

# NICHOLAS A. DEL GROSSO

## PERSONAL INFO

<i>Address</i>	Karl-Witthalm-Str. 3, 81375 München
<i>Telephone</i>	+49 170 8253289
<i>E-mail</i>	<a href="mailto:delgrosso.nick@gmail.com">delgrosso.nick@gmail.com</a>

## GOALS

- Obtain teaching, project management, and laboratory experience sufficient to one day become a competent university professor.
- Build technical skills in a wide variety of fields in order to perform high-quality research at institutes with limited resources.
- Obtain a PhD in cognitive neuroscience by studying multimodal sensory integration and sensorimotor interactions.
- Support open science by building tools and teaching research methodology that promotes reproducible research.

## EDUCATION

<i>Aug 2012</i>	<i>M.Sc. Neuroscience</i>	Max Planck International Research School, Graduate School of Neural and Behavioural Sciences
<i>May 2010</i>	<i>B.Sc. Psychology</i>	Wittenberg University

## RESEARCH EXPERIENCE

<i>May 2013 - Present</i>	<i>Ludwig-Maximilians Universität</i>	Prof. Dr. Anton Sirota  Programmed a 3D graphics engine in Python to build virtual reality system for freely moving rats, designed and carried out cognitive science experiments testing the generalizability of virtual reality research to its real-world counterparts, supervised six students in programming, engineering, and cognitive science projects, organized weekly journal clubs, planned departmental social events and retreats, and ordered new laboratory equipment.
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## INDUSTRY EXPERIENCE

<i>Technical Consultant</i>	UKT Psychosomatic Med. and Sports Med.  I evaluated and designed a solution for performing medical science studies in a placebo study, and taught the PhD student who carried out the study over several remote sessions and a few travel consultations.
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## JOURNAL PUBLICATIONS

Nicholas A. Del Grosso, Justin J. Graboski, Weiwei Chen, Eduardo Blanco Hernández, Anton Sirota. "Virtual Reality system for freely-moving rodents." *bioRxiv* 161232. July 2017; doi=<https://doi.org/10.1101/161232>

Broetz D., Del Grosso, N.A., Rea M., Ramos-Murguialday, A., Soekadar S.R., Birbaumer, N. "A New Hand Assessment Instrument for Severely Affected Stroke Patients." *Journal of Neurorehabilitation*. 2014; 34(3), 409-27.

Benoit, J.B., Del Grosso, N.A., Yoder, J.A., Denlinger, D.L. "Resistance to Dehydration between Bouts of Blood Feeding in the Bed Bug, *Cimex Lectularius*, is Enhanced by Water Conservation, Aggregation, and Quiescence." *American Journal of Tropical Medical Hygiene*. May 2007; 76(5), 987-93.

## CONFERENCE PUBLICATIONS

July 2017	PyData Barcelona	The Neuroscience Lab; A Tour Through the Eyes of a Pythonista
November 2016	Munich Interact	Tracking Rats Exploring a Virtual World; Do They Believe what they See?
July 2016	FENS Forum of Neuroscience	Probing Rodent Perception of Virtual Environments with Freely-Moving Virtual Reality
June 2015	Synergy Munich	ratCAVE, A Novel Virtual Reality System for Freely-Moving Rodents
March 2015	Interact Munich	Demonstrating a Freely-Moving Virtual Reality Approach for Rodent Research
Nov 2014	Society for Neuroscience	ratCAVE, A Novel Virtual Reality System for Freely-Moving Rodents.
Nov. 2012	NENA Tübingen	Interpreting (M)EEG, A First Look at Dynamic Causal Modeling.  Introduced a probabilistic nonlinear modeling framework for interpretation of MEG and EEG data, along with the results of a pilot study in which we applied the approach.
Nov. 2011	NENA Tübingen	The Intrinsic Bias During the Blind-Walking Task is Not Caused by an Aberrant Intrinsic Ground-Slope Model.

## SKILLS

- **Languages:** English (Mother Tongue), German (Level B1), French (Level A1-2)
- **Programming:** Python, Matlab, C-Sharp, GLSL, R, LabView, C, Bash/Linux, LaTeX
- **Stimulus Presentation:** Psychopy, Neurobs Presentation, Psychophysics Toolbox, OpenGL, Pyglet, SuperLab, RatCAVE
- **Statistical Analysis:** Statistical Parametric Mapping (SPM), SPSS, R, Matlab Statistics Toolbox, Fieldtrip, gTec Analyze, BrainVision Analyzer
- **Graphics:** Blender, Adobe Suite (Photoshop, Illustrator, and InDesign), OpenGL, Google SketchUp, GIMP, Inkspace
- **Wet Lab Skills:** Rat Neurosurgery, Animal Behavioral training (rats and monkeys), in vivo electrophysiology (single needle electrodes, chronically-implanted electrode arrays, noninvasive arrays of EEG electrodes and MEG sensors), Basic Electronics, Comfortable with building custom laboratory equipment
- **EEG System Experience:** BrainProducts, gTec, Grass Instruments, CTF

## AWARDS

July 2017	Hackathon Track Winner at Media Lab Bayern Event "FutureLab--Smart Home meets Journalism"
April 2017	Hackathon Winner at Burda Bootcamp Event "Love Hackathon"

- 2016 Best Talk Award at Interact Munich Conference
- 2015 Best Poster Award at Interact Munich Conference
- 2011 National Science Foundation Graduate Research Fellowship
- 2008 NSF Neuroscience REU Fellowship at Duke University

Full List of Positions and Publications Available Upon

A handwritten signature in black ink, appearing to read "Niklas S. David". The signature is fluid and cursive, with the first name "Niklas" being more prominent than the last name "David".

Request.

October 31, 2017