NICHOLAS A. DEL GROSSO

PERSONAL INFO

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GOALS

- To continually improve my teaching, programming, and project management skills.
- To provide laboratory experiences and an outstanding science education.
- To inspire, motivate students through science and critical thinking.
- To empower individuals by developing, and teaching open-source software and tools.

EDUCATION

Oct 2014 - Present

PhD. Cognitive Neuroscience

Lüdwig-Maximillians Üniversität

Aug 2012 - Oct 2014 PhD. Cognitive Neuro- Max Planck International Research School, science Graduate School of Neural and Behavioural Sciences

Aug 2012 M.Sc. Neuroscience Max Planck International Research School, Graduate School of Neural and Behavioural Sciences

May 2010 B.Sc. Psychology Wittenberg University

RESEARCH EXPERIENCE

May 2013 - Ludwig-Maximillians Prof. Dr. Anton Sirota Universität

Programmed a 3D graphics engine in Python to build virtual reality system for freely moving rats, supervised students in programming, engineering, and cognitive science projects, organized weekly journal clubs, and ordered new equipment, trained rodents to perform behavioral tasks, and performed surgery on said rodents as part of brain

research.

July 2012

Aug 2012 - Universität Tübingen Prof. Dr. Christoph Braun
May 2013
Western recently great to study the ten down and bettern up in

Wrote a research grant to study the top-down and bottom-up interactions by computational modeling information propagation in early sensory pathways as measured by MEG, designed and administrated an institute wiki, organized a student lecture series,

and supervised two students' EEG research projects.

Nov 2011 - Universität Tübingen Prof. Dr. Niels Birbaumer

Programmed in Matlab a time-frequency and evoked potential analysis on three years' worth of MEG data assessing longitudinal changes in stroke patients receiving

worth of MEG data assessing longitudinal changes in stroke patients receiving physiotherapy.

Oct 2012 - Universität Tübingen Prof. Dr. Cornelius Schwarz

Nov 2012 Trained rats to perform whisking in response to barrel cortex stimulation viachronically-implanted electrodes, mapping stimulation sensitivity to each cortical layer.

viacinorically implanted electrodes, mapping simulation scisionity to each coracti layer.

Technical Consultant 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.

JOURNAL PUBLICATIONS

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 Hygience. May 2007; 76(5), 987-93.

CONFERENCE PUBLICATIONS

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: Pyton SciPy Stack (Pandas, Numpy, Matplotlib), 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

Best Poster Award at Interact Munich Conference
 National Science Foundation Graduate Research Fellowship
 NSF Neuroscience REU Fellowship at Duke University
 Full List of Positions and Publications Available Upon Request.

Nikla Sol Desse

June 21, 2016