

NICHOLAS A. DEL GROSSO

INDUSTRY EXPERIENCE

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.

Research Internship

The Neuromarketing Labs

I completed set-up of an EEG laboratory, including software calibration and noise measurements. Designed and ran two experiments estimating the evoked responses of semantic agreement and price agreement, then analyzed the data. The results from the second experiment are the basis of Dr. Müller's recently-published book, *Neuropricing*. Currently volunteering as an EEG consultant by giving one-day workshops on Fieldtrip, SPM, and artifact correction methods.

RESEARCH EXPERIENCE

May 2013 -
Present

Ludwig-Maximilians
Universität

Prof. Dr. Anton Sirota

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.

Aug 2012 -
May 2013

Universität
Tübingen

Prof. Dr. Christoph Braun

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 -
July 2012

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 physiotherapy.

Oct 2012 -
Nov 2012

Universität
Tübingen

Prof. Dr. Cornelius Schwarz

In this lab rotation, I trained rats to perform whisking in response to barrel cortex stimulation viachronically-implanted electrodes, mapping stimulation sensitivity to each cortical layer.

Nov 2010 -
March 2011

Universität
Tübingen

Dr. Michael Barnett Cowan

Programmed an online EMG classifier in Matlab and Simulink to accurately detect finger movements within milliseconds for EEG coherence brain-computer interface training.

Dec. 2009 -
Aug. 2010

Wittenberg University

Prof. Dr. Josephine Wilson

Built an NI-DAQ EEG system, programmed online analysis and data acquisition in Matlab and LabView, and confirmed its functionality in three different experiments. As a senior lab assistant, also worked as an aid for rat neurosurgery and noninvasive electrophysiology (skin conductance, EMG, EKG, and EEG) laboratory course sessions, which included planning and giving demonstrations on each method above.

June-Aug 2008 -
June-Aug 2009

Duke University

Prof. Dr. Jennifer Groh

Trained Macaque monkeys to perform visual saccade tasks while mapping receptive fields in superior and inferior colliculus.

Aug 2007 -
Dec. 2009

Wittenberg University

Prof. Dr. Michael Anes

Conducted three behavioral psychophysics studies on the hemispheric lateralization of face perception. Tasks included programming stimulus sequences in SuperLab, patient recruitment and management, data collection, and conference poster preparation.

Nov 2006 -
March 2007

Measured dessication rates in the bed bug and isolated fungal growth in three species of cockroach. These studies resulted in a publication in a peer-reviewed journal and a poster presentation at an undergraduate research conference.

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)

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.



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