NICHOLAS A. DEL GROSSO

PERSONAL INFO

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GOALS

- To continually improve my teaching, 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 Neuroscience*	Max Planck International Research School, 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

TEACHING EXPERIENCE

May 2016 — *Lecturer* — Introduction to Scientific Programming in Python

In this 10-week course, I taught beginning programmers data management, scientific data analysis, and programming skills in a new language (Python). Besides organizing and planning the course, I also prepared all course materials, homework assignments, and graded their final projects.

Winter 2014 — *Lecturer* — Introduction to Matlab

For 3 Semesters

December 2015 — *Teaching Assistant* — Psychophysics

In this 2-week block course, I acted as tutor, providing technical and programming assistance to students programming and analysing their own psychopysics experiments in Matlab, R, and Excel.

Summer 2015 — *Tutor* — Writing Tutor

Proofread and Edited research papers for graduate students in medicine, neuroscience, and philosophy to programming

RESEARCH EXPERIENCE

May 2013 - Present	*Ludwig-Maximillians 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, trained rodents to perform behavioral tasks, and performed surgery on said rodents as part of brain research.

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

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

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.

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.

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

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 Request.

June 3, 2016