# Nicolás Gravel, Ph.D.

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Scientist passionate about basic and applied research, scientific software and hardware development. I am interested in vision, computational and theoretical neuroscience, functional neuroanatomy, basic and applied biomedical research.

## EXPERIENCE

### Freie Universität, Berlin, DE

*Postdoctoral Researcher in Neural Dynamics*

APRIL 2019 - PRESENT

- Jointly affiliated with the Ernst Strüngmann Institute for Neuroscience, Frankfurt
- Development of a high performance data analysis pipeline using parallel computing resources
- Applying machine learning techniques to analyze Human Connectome Project fMRI and electrophysiological data

### Groningen University Medical Center, Groningen, NL

*Doctoral Researcher in MRI techniques and fMRI analysis*

JUNE 2013 - SEPTEMBER 2018

- Developed novel MRI techniques and analyses
- Mentored 4 MA and 2 PhD students
- Gained further experience as a visiting researcher:
  - Implementation of fMRI compatible eye-tracking system, *Universidad Católica de Chile, CL*
  - Brain-network modeling and computational connectomics, *Computational Neuroscience Group, Universidad Pompeu Fabra, Barcelona, ES*

### Universidad Católica de Chile, Santiago, CL

*Research Assistant in Electrophysiological Recordings and Closed-Loop Control Equipment for Behavioral Study*

MARCH 2010 - MARCH 2012

- Developed embedded applications using microcontrollers and integrated circuits (ATmega, FPGA, Intan amplifiers & A/D chips)

## EDUCATION

### University of Groningen, The Netherlands — Ph.D.

*Behavioral and Cognitive Neuroscience*

AUGUST 2013 - APRIL 2018

- Thesis: The Neuroanatomical Organization of Intrinsic Brain Activity Measured by 7T fMRI in the Human Visual Cortex
- Coursework in neuroimaging, data analysis and neural networks

### Universidad de Chile, Santiago, Chile — L.Sc.

*Biological Sciences*

MARCH 2004 - DECEMBER 2009

- Specialization in Neuroscience
- Coursework in programming, instrumentation and biostatistics

## SKILLS

Computational modeling, artificial intelligence, hardware and software development (Python, Matlab, others)

Instrumentation, microcontrollers, data acquisition & visualization

Analog and digital electronics, printed circuit board design

Education, basic and applied research, sustainable technologies, accessibility

## AWARDS

Alexander von Humboldt fellowship for postdoctoral research, DE

Advanced Human Capital Scholarship for post-doctoral research, CL

Professor Mulder Stitching Scholarship for doctoral research, NL

Advanced Human Capital Scholarship for doctoral research, CL

Abel-Tasman Scholarship for young talents in the biomedical sciences, NL

## LANGUAGES

Spanish, *native*

English, *advanced (C2 proficiency)*

German, *intermediate (B2)*

## PUBLICATION LIST

https://nicogravel.github.io/