# José C. García Alanis

PHD CANDIDATE | PSYCHOLGIST | DATA ANALYST | SCIENTIFIC SOFTWARE DEVELOPER

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Hi! I'm a experimental and clinical psychologist at the Philipps-Universität Marburg. My work lies at the interface between science and clinical practice, bridging basic research with the application of clinical interventions in the field. My research interests are focused on personal and situational influences on human brain function in relation to goal-directed behavior. I have a background in statistical modelling and scientific software development using **Python** (e.g., NumPy, Pandas, SciPy, scikit-learn), **R**, and **Git**. I'm also an active member of the open source community and an advocate of open, reproducible, and robust scientific practices.

# Experience \_\_\_\_

### SCIENTIFIC

Research Fellow Marburg (Germany)

PHILIPPS-UNIVERSITÄT MARBURG October 2019-Present

- Build robust data cleaning and preprocessing pipelines that work reliably across multiple data sets.
- Optimise statistical analysis, data visualisation, and report process for multiple scientific projects.

### **Google Summer of Code Student Developer**

PYTHON SOFTWARE FOUNDATION

• Enhance statistical inference capabilities of the Python package MNE-Python.

Visiting Researcher Montreal (Canada)

McConnell Brain Imaging Centre, Montreal Neurological Institute

• Multivariate analysis of large clinical data sets (e.g., HCP).

## **Research and Teaching Assistant**

PHILIPPS-UNIVERSITÄT MARBURG

- Plan, conduct, and evaluate psychological / neuroscientific experiments (e.g., using EEG).
- Design study protocols, develop methods to assess compliance and behavioral performnace.
- Programming of experiment interfaces, real-time experimental control.
- Teaching of undergraduate students (experimental design, data anaylsis plans, data visualisation).

#### CLINICAL WORK

## **Scientist-Practicioner (Marburg Model)**

CHILD AND ADOLESCENT PSYCHOLOGY, PHILIPPS-UNIVERSITÄT MARBURG

· Carry out diagnostics and intervetions within clinical reserach projects.

Clinical Research Intern

Bad Arolsen (Germany)

Dep. of Psychotherapy, Schön Klinik

· Database and project management.

Clinical Intern Berlin (Germany)

Dep. of Psychiatry and Psychotherapy, Charité Universitätsmedizin

• Patient recruitment, diagnostics.

Dertiir (Germany)

May 2014-September 2014

September 2013-Dezember 2013

# Education

# Dr. rer. nat. (PhD) in Psychology

Philipps-Universität Marburg

Marburg (Germany)

Jan 2015-Present

Remote

May 2019-September 2019

January 2016–April 2016

Marburg (Germany)

Marburg (Germany)

October 2019-Present

October 2014-September 2019

• Doctoral Thesis: The electrophysiology of individual differences in executive-dependent descision making.

# German Diplom in Psychology (M.Sc. equivalent)

PHILIPPS-UNIVERSITÄT MARBURG

• Majors: Clinical psychology, biological and experimental psychology.

Marburg (Germany)

October 2008-September 2014

# Skills

#### **Analytics**

STATISTICAL MODELLING, DATA SCIENCE, REPRODUCIBLE RESEARCH

#### **Programming**

PYTHON (ADVANCED), R (ADVANCED), GIT (ADVANCED), MATLAB (ADVANCED), SQL (INTERMIDIATE)

#### **Packages**

NumPy, Pandas, SciPy, scikit-learn, tidyverse, lme4

### Languages

GERMAN, ENGLISH, SPANISH

# Workshops

Nov. 2020 Using Multivariate Statistics to Analyse EEG Data: Instructor / Organiser (Brainhack, Global)

Virtual event. Researchers from across the globe work together on innovative projects.

Nov. 2019 **Jupyter Nootebooks and Python essential training**: Instructor / Organiser (Brainhack Marburg, Germany) Hackathon for researchers to collaborate on open science / neuroimaging projects.

Sep. 2019 Machine Learning for Neuroscientists: Teaching Assistant (DZNE, Magdeburg, Germany)

Training with relevant neuroimaging software packages and tools for machine learning.

Jun. 2018 **Library Carpentry**: Teaching Assistant (University Library Marburg, Germany)

Create, analyse, and maintain sustainable data ressources with Python.

# **Grants and Awards**

Oct. 2019 Reserach Fellowship (Marburg Model): Philipps-Universität Marburg

Jun. 2018 DGPA Best Poster Award: 44th DGPs/DGPA Tagung Psychologie und Gehirn conference (Gießen, Germany)

Jan. 2016 Travel Grant (DAAD-IPID4all): Research Stay at Montreal Neurological Institut (Montreal, CA).

Oct. 2015 Travel Grant (DAAD-IPID4all): 55th Annual Meeting Society for Psychophysiological Research (Seattle, WA).

Jun. 2013 DAAD-STIBET: Degree Completion Grant (Philipps-Universität Marburg)

Jun. 2011 DAAD-STIBET: International Students Engagement Scholarship, Philipps-Universität Marburg.

# **Publications**

- 1. Gau, R., Noble, S., Heuer, K., Bottenhorn, K. L., Bilgin, I. P., Yang, Y. F., ... & Marinazzo, D. (2021). Brainhack: Developing a culture of open, inclusive, community-driven neuroscience. *Neuron*. https://doi.org/10.1016/j.neuron.2021.04.001
- 2. Herholz, P., Vogelbacher, C., & **García Alanis., J. C.** (2020, November). G0RELLA/gorella\_overview: initial alpha release (Version v0.0.1-alpha). Zenodo. http://doi.org/10.5281/zenodo.4276460
- 3. **García Alanis, J. C.**, Baker, T. E., Peper, M., & Chavanon, M. L. (2019). Social context effects on error-related brain activity are dependent on interpersonal and achievement-related traits. *Scientific reports*, *9*(*1*), 1-14. https://doi.org/10.1038/s41598-018-38417-2
- 4. Vainik, U., Baker, T. E., Dadar, M., Zeighami, Y., Michaud, A., Zhang, Y., ... & Dagher, A. (2018). Neurobehavioral correlates of obesity are largely heritable. *Proceedings of the National Academy of Sciences*, 115(37), 9312-9317. https://doi.org/10.1073/pnas.1718206115
- Bahn, D., Vesker, M., García Alanis, J. C., Schwarzer, G., & Kauschke, C. (2017). Age-dependent positivity-bias in children's processing of emotion terms. Frontiers in psychology, 8, 1268. https://doi.org/10.3389/ fpsyg.2017.01268